

# Huawei Consumer Business Sustainability Progress Report (2023-2024)





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# Executive Letter



## He Gang

Chief Executive Officer, Huawei Consumer Business Group  
Sustainable Development Committee Director  
Huawei Consumer Business Group

We are living in a time of transformation and innovation. Technologies are reshaping the world and improving our day-to-day lives in many different ways. However, issues like the information gap, global warming, and plastic pollution pose significant risks to social sustainability. As a technology company, Huawei firmly believes that technological progress holds the key to addressing these challenges. Huawei aims to help society move towards a more sustainable future through ongoing innovation and responsible actions.

## Offering everyone the chance to access and participate fully in the digital world

Huawei continues to explore information accessibility and promotes the development of accessibility technologies through innovation. Huawei offers key accessibility capabilities, such as ScreenReader, magnification gestures, and seamless connectivity with hearing-aid devices to aid people with visual and hearing impairments. HarmonyOS NEXT uses AI foundation models to boost accessibility. For example, the voice enhancement feature leverages AI capabilities to enhance the clarity of voices. In the future, Huawei will share the algorithm and model to enable technological progress to benefit more people.

At the HUAWEI DEVELOPER CONFERENCE (HDC) 2024, Huawei continued its tradition of setting up an accessibility experience exhibition area for the fourth year in a row, enabling more people to benefit from technological advancements. Last year, industry experts recognized Huawei's continued investment in improving accessibility by honoring Mate 60 Pro+, powered by HarmonyOS 4.0, with a five-star rating for smartphone information accessibility. Huawei will keep improving accessibility and experience to enable everyone to have equal opportunities to access and use information.

## Driving sustainable development through technological innovation

Huawei has always been committed to protecting nature using technology. Through technological innovation, the company performs closed-loop management throughout the entire lifecycle of products to minimize their impact on the environment. Huawei utilizes 14 types of renewable materials, including paper, gold, copper, glass, and plastic to manufacture products. For example, among Huawei wearables, the HUAWEI WATCH GT 5 uses 100% renewable nylon for the braided part of its Blue composite strap, while the HUAWEI WATCH D2 uses 100% renewable gold and electroplated copper for its button FPC. For products coming to the end of their lifecycles, Huawei tries to repair the mainboards, screens, and other components, instead of simply scrapping the products. In this way, Huawei has extended the lifespan of more than 10 million devices.

Huawei is looking to reduce the carbon footprint of its operations by switching to renewable and clean energy. In 2023, Huawei used more than 720 million kWh of electricity from renewable energy sources, which represents a year-on-year increase of 84.2%, as well as nearly 2.87 billion kWh of electricity from clean energy sources, which accounts for more than 50% of the company's total electricity consumption. Huawei works with partners to promote green and low-carbon transformation along the supply chain. By optimizing logistics packaging, Huawei improves product transportation efficiency. It has also introduced new energy vehicles and freighters, which has reduced carbon emissions from transporting Huawei products by more than 3,150 metric tons per year.

## Building a sustainable ecosystem that fosters harmony and mutual success

We proactively work with stakeholders to build a sustainable industry ecosystem. We strive to deliver a high-quality and premium consumer experience. The "I'm an Experience Officer" activities attracted more than 350,000 users. In addition, we encourage our employees to pursue personal development. In 2023, we provided over 1.5 million hours of training, attracting a total of more than 200,000 individual enrollments. Huawei Device Co., Ltd. ("Huawei Device" for short) has created more than 86,000 jobs around the world, boosting local employment and economic growth.

As a technology company, our core responsibility is to create value for society through our products

and services. Since the debut of the BeiDou satellite SMS messaging feature on Mate 50 devices in 2022, we have enhanced the comprehensive satellite communication capabilities over the past two years. The feature can be used not only to send messages and make calls, but also to share images, enabling people to stay connected even in areas without network coverage. In the past year, Huawei products' earthquake warning function successfully alerted users to 63 earthquakes of magnitude 3 or above, totaling 97 million person-times. We will continue to strive to create more value for society through technological progress.

## Moving towards a better and more sustainable future

Collaborative efforts go a long way. The sustainable development of the industry chain cannot be achieved without support from customers, consumers, industry organizations, suppliers, and other partners. We look forward to working with all parties to achieve

our shared goals of using innovative technologies to promote the harmonious development of the economy, environment, and society, and to build a better world for all.



# **Sustainability Management**

**Building a leading  
sustainability system**

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HUAWEI



# Organization and strategy

## Sustainable development organization

Under the guidance of Huawei's Corporate Sustainable Development (CSD) Committee, Huawei Consumer Business Group (Consumer BG) has established its own Sustainable Development Committee.

As the highest-level decision-making organization for matters related to sustainable development within the Consumer BG, the Sustainable Development Committee develops and monitors the implementation of related strategies, objectives, policies, and regulations.

A sustainable development working group has been established under the Sustainable Development Committee of the Consumer BG to implement annual sustainable development goals and key tasks in business domains.

## Sustainable development strategy

In line with the CSD Committee's strategy, the Consumer BG is focusing on information accessibility, environmental protection, education and health, and corporate responsibility within the context of the consumer electronics industry to build the brand image as a friendly, green, and trustworthy company focused on sustainable enterprise development.

Every year, the Consumer BG identifies sustainability risks and opportunities and sets annual sustainable development goals and priorities based on external stakeholders' requirements, laws and regulations, and the operations of the internal sustainability management system.

### Information Accessibility

Using technology for the benefit of all

### Education and Health

Using technology to affect change

### Environmental Protection

Harnessing technology for a better planet

### Corporate Responsibility

Repaying trust with responsibility, through technology

# Management system

## Management system based on international standards

Huawei Device has established a sustainability management system based on the plan-do-check-act (PDCA) cycle by considering both the internal and external environments and referring to standards such as ISO 26000 and SA8000. This system focuses on six key areas: leadership, planning, organization and skills support, process operations, performance appraisal, and continual improvement. We use this closed-loop system to manage our sustainability strategies and goals.

BROADBAND COMMISSION  
FOR SUSTAINABLE DEVELOPMENT

GeSI  
ENABLING  
DIGITAL  
SUSTAINABILITY

THE GLOBAL COMPACT  
WE SUPPORT

Responsible Business Alliance  
Advancing Sustainability Globally

CSR  
EUROPE

WORLD  
ECONOMIC  
FORUM

## Communication with stakeholders

Huawei values its stakeholders' opinions and uses them to guide improvements to its sustainability management practices. The stakeholders include customers, consumers, suppliers, ecosystem partners, and industry organizations. Every year, Huawei carries out various stakeholder communication activities to convey sustainability concepts and practices, provide opportunities for feedback and discussion, and understand their needs and expectations for Huawei.

### Stakeholder communication activities



#### Supplier Carbon Reduction Conference

On July 12, 2024, the fourth Supplier Carbon Reduction Conference was successfully held at the Huawei Industrial Base in Bantian, Shenzhen. At the conference, Huawei conveyed its carbon emission reduction requirements to suppliers.



#### HDC

From June 21 to 23, 2024, the HDC was held at Huawei's Songshan Lake Campus in Dongguan. Many technical experts, industry leaders, and developers from around the world gathered to explore the benefits of the HarmonyOS ecosystem.



#### Improving accessibility

Huawei worked with local associations which represent people with visual or hearing impairments in 88 cities across China to carry out more than 220 Huawei accessibility feature experience activities and provide guidance and experience services for people with disabilities.



#### Green retail forum

In November 2023, Huawei Device held the "Green, Innovative, Digital" forum at the HUAWEI Flagship Store (HFS) in Zone G of the Huawei Industrial Base, Bantian, Shenzhen. This event was focused on discussing the standards for green retail store construction and it was here that Huawei proposed the green store industry initiative.



#### Teaching the elderly to use smartphones

Trainers from Huawei stores held sessions in residential communities to help the elderly learn to use smartphones so that they could experience the convenience of the digital world. For the year ending June 2024, more than 6,000 such activities were carried out.



#### "I'm an Experience Officer"

From June 2023 to June 2024, Huawei's Handsets Product Line held 256 "I'm an Experience Officer" activities, attracting 350,000 dedicated participants.



# Honors and awards



**HarmonyOS 4 accessibility solution: selected as an excellent example of information accessibility in 2024**

Accessibility Research Association (ARA), China Software Industry Association (CSIA), ifeng.com, and Phoenix Lab



**Mate 60 Pro+ powered by HarmonyOS 4: five-star rating for smartphone information accessibility in 2024**

ifeng.com



**MIIT success stories of new digital services in 2024**

Ministry of Industry and Information Technology (MIIT) of the People's Republic of China



**2023 CDP Climate Change "A List"**

CDP



**Sustainability Champion of the Year Award 2023**

AfricaCom



**Top Employer in Europe**

Top Employers Institute



**Best Contribution to Cyber Security**

Vietnam Information Security Association (VNISA)



**Best Data Privacy Governance**

Association of Big Data & AI (ABDI), Indonesia



**Prime Minister Award: Best of Contributor in Human Capital Development**

National Innovation Agency (NIA), Thailand



**HarmonyOS 4 accessibility solution: selected as an excellent example in 2023**

China Computer Federation (CCF)



**HarmonyOS 3: five-star rating in the 2023 assessment of the elderly-friendliness of operating systems (OSs)**

China Telecom Research Institute



**MIIT success stories of improving mobile internet's app and service capabilities in 2023**

China's MIIT



# Information Accessibility

## Using technology for the benefit of all

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- **5-star**

Mate 60 Pro+ powered by HarmonyOS 4.0 received a five-star rating for smartphone information accessibility in 2024.

- **AI-assisted capabilities**

HarmonyOS NEXT leverages AI foundation models to provide AI-assisted capabilities and upgrade Celia's intelligence.

- **1M**

More than 1 million copies of the *Parent's Mobile Phone Instructions* have been distributed.

- **30,000+**

The live accessibility courses have helped more than 30,000 visually impaired users master the skills needed to use accessibility features.

- **220+**

Huawei worked with local associations which represent people with visual or hearing impairments in 88 cities across China to carry out over 220 Huawei accessibility feature experience activities.

- **6,000+**

For the year ending June 2024, more than 6,000 sessions to teach the elderly how to use smartphones were carried out in residential communities.







# Using technology for the benefit of all

## Building accessibility capabilities

Huawei has offered key accessibility capabilities for people with visual and hearing impairments, such as ScreenReader, magnification gestures, and seamless connectivity with hearing-aid devices. To provide users with a more convenient experience, Huawei has also developed AI-assisted capabilities, such as text recognition, photography assistance, and Celia Call. Beyond phones, Huawei has extended the accessibility capabilities to devices such as watches, smart glasses, laptops, and speakers.

Huawei continues to invest in improving information accessibility, and has developed new accessibility features to empower users, enable them to benefit more from the convenience of smart devices, and give them more confidence and freedom.

	Function/Feature (For Users with Visual Impairments)	Function/Feature (For Users with Hearing Impairments)
<b>Key accessibility capabilities</b>	ScreenReader, magnification gestures, larger fonts, high-contrast text, color correction, color inversion, shortcuts for accessibility features, voice-to-text conversion, and AI Reader	Mono audio playback, Sound Booster, audio balance, custom voice, and seamless connectivity with hearing-aid devices
<b>AI-assisted capabilities</b>	Image description, text recognition, photography assistance, Smart Q&A, AI Voice, Celia writer, and image recognition	Celia Call, speech-to-text conversion, adding subtitles to video, and voice enhancement
<b>Accessibility capabilities on devices other than phones</b>	Quick reminders for smart glasses/earphones, watch-screen reading, and AI Voice on HUAWEI Vision and speakers	Vibration reminders on watches, AI Subtitles on HUAWEI Vision, and AI Minutes on laptops

Note: The above features may vary slightly depending on the device model and system version.



## Developing an accessibility ecosystem

Huawei continues to explore ways to improve accessibility and promotes the development of accessibility technologies through technological innovation. In 2024, for the fourth year in a row, Huawei has set up a Digital Inclusion Experience Center and accessibility experience exhibition area at HDC. The Digital Inclusion Experience Center featured various engaging exhibition areas, such as an area simulating shopping in a dark supermarket and a non-visual photography area, which showcased the value of accessibility technologies in bringing people together and improving the lives of those with disabilities.



The Digital Inclusion Experience Center at HDC 2024

Huawei values feedback from users with disabilities. For three years in a row, during HDC, Huawei has invited users with visual and hearing impairments, as well as elderly users to join us for lakeside discussions with the Chief Executive Officer of Huawei Consumer BG, Huawei engineers, accessibility product managers, and ecosystem partners. Huawei invites them to share their thoughts and feedback in a bid to develop a strong accessibility ecosystem together.



Lakeside talk with users with disabilities at HDC 2024



## HarmonyOS NEXT: Legacy and breakthroughs

Huawei is driving the improvement of accessibility experiences through technological innovation. The HarmonyOS upgrade also enhances accessibility features. Based on the accessibility features supported by HarmonyOS 4, HarmonyOS NEXT provides a brand-new built-in voice enhancement feature. It leverages AI capabilities to enhance the clarity of voices, so that users with language barriers can communicate with others more easily. In the future, Huawei will share the algorithm and model with the public to enable technological progress to benefit more people with disabilities.

According to big data statistics and analysis, people with disabilities use Celia far more frequently than other users. This supports the conclusion that Celia can understand users' needs and provide effective visual assistance. Celia is not only a game-changer for visually-impaired users. Users can also easily reply to messages and make calls through Celia without needing to lift a finger. Huawei will continue to optimize Celia's functions and make her more intelligent and efficient, so that more users can enjoy positive and convenient digital experiences.

### Pursuing a dream and connecting to the world through vibration

Gao Yanxia lost her hearing when she was in primary school, yet she ranked first in China in the admissions assessment when applying to join the China Disabled People's Performing Art Troupe. She went on to become the youngest lead dancer in the Thousand-Hand Bodhisattva dance. "Although I can't hear music or applause, I can dance well and feel the joy of movement by feeling the vibrations of the beats." Vibration connects her not only to music, but also to the world around her.

In the past, Gao Yanxia often missed calls and messages because she could not hear them. In noisy environments, she often had to rely on lip-

reading during face-to-face conversations, and making phone calls was impossible. However, now her Huawei smart wearable on her wrist helps her out. It vibrates to alert her to incoming calls, messages, or alarms. The AI Subtitles feature provides real-time speech-to-text conversion for face-to-face conversations, online live streams, and online courses, enabling smooth communication and learning.

Gao Yanxia's story has inspired many to pursue their dreams. Huawei's accessibility features for users with hearing impairments allow them to "see" voices and connect with others through text and vibration.



Gao Yanxia watches a course video using Huawei's AI Subtitles feature.



## Non-profit initiatives to improve accessibility

From 2023 to 2024, Huawei worked with local associations which represent people with visual or hearing impairments in 88 cities across China to carry out more than 220 Huawei accessibility feature experience activities. Huawei provided 14,000 hours of offline accessibility feature usage guidance and experience services for people with disabilities.

So far, Huawei has developed 13 accessibility courses, covering scenarios such as basic device operations, efficient office work, social entertainment, outdoor travel, and smart home. During offline activities, trainers demonstrate accessibility features and device usage knowledge and skills to help people with disabilities to master these skills and experience the life-changing benefits of technology.

To improve the services for people with disabilities, Huawei has provided accessibility training for nearly 1,000 members of staff working in its physical stores. During the International Week of the Deaf in September 2023, employees from the HFS on Nanjing East Road in Shanghai received sign language training from the local government. Thanks to this training and help from the AI Subtitles feature, the employees were able to communicate with and assist customers with hearing impairments.



A Huawei accessibility feature experience activity in Urumqi in May 2024



A Huawei accessibility feature experience activity in Yancheng, Jiangsu in May 2024

## Collaborating with users to improve information accessibility products and features

Huawei values feedback from hearing- and visually-impaired users and invites them to participate in the development of information accessibility features. Over the past year, more than 200 users with disabilities took part in the accessibility experience officer activities in Beijing, Nanjing, Wuhan, Xi'an, and Guangzhou, together contributing over 150 brilliant ideas and valuable pieces of feedback.

Users with accessibility needs want to be heard and included in decisions related to the products and functions that are designed for them. On April 13, 2024, at the "I'm an Experience Officer" activity held in Xi'an, accessibility experts and hearing-impaired users discussed multiple features designed for users with hearing impairments on Huawei phones, such as AI Subtitles and Celia Call, and offered valuable suggestions in terms of noise reduction, quality of speech-to-text conversion, etc.



I'm an Experience Officer 2024: An in-person event with hearing-impaired experience officers in Xi'an

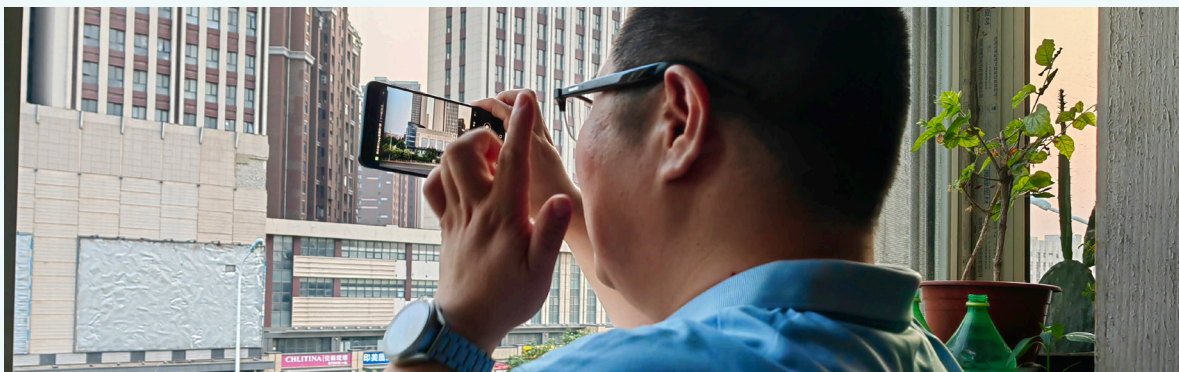
## Every user contributes to information accessibility

Yin Nan from Tianjin is a fan of digital products and also the chairman of the Hongqiao District Blind Association. As a long-time Huawei fan, he has always been keen to help improve Huawei devices' accessibility capabilities.

At the beginning of 2024, Yin Nan participated in Huawei's feature test related to broadcasting delays. He used two phones for comparison tests every day, carefully listening to the broadcasting speed differences as he moved his finger from one app icon to another. During each test, he recorded the phones' screens so that he could quickly identify and record issues. He had to repeat this

arduous process five to ten times. Yin Nan said, "I really hope that I can identify issues and thus help all Huawei phone users."

Two months later, he received a test version of the product with the delay issue optimized. "After receiving the new version, I immediately tested it and found the delay issue had been significantly improved. I'm really excited to work with Huawei R&D personnel to make accessibility features better. We can all help by actively finding and reporting issues so that Huawei can continue to improve its accessibility features."



Yin Nan conducts an experience test using Huawei's ScreenReader feature.

# Enabling the elderly to experience the benefits of a digital life

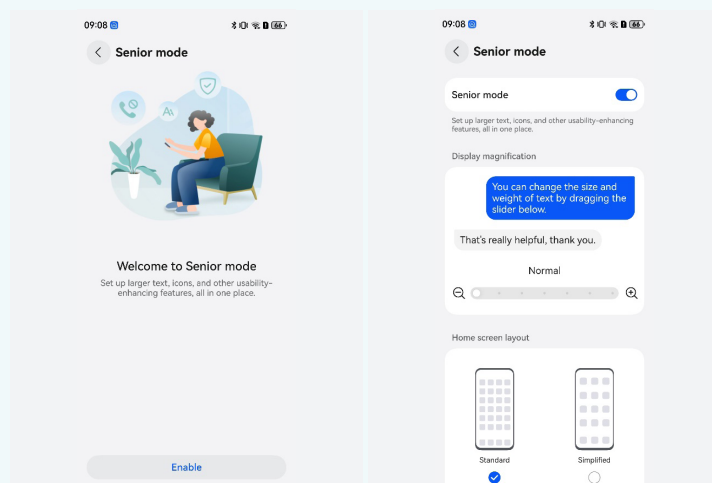
## Senior mode: Making technology products more accessible for the elderly

To enable elderly users to experience the benefits of a digital life, Huawei has been tailoring products for them since 2012 by upgrading the OS to suit their abilities, lifestyles, and needs. Elderly users now have a much better user experience as a result. The visual clarity has been enhanced, and the default system volume is set to high to ensure that they hear calls clearly. In April 2022, Huawei released Senior mode together with HarmonyOS 2 for elderly users with poor vision and/or hearing and for those who are unable to make precise movements when touching the device screen.

In May 2023, Huawei launched the newly improved Senior mode 3.0. It magnifies the UI display on phones, offers more elderly-friendly app management, prevents fraud, and blocks spam. These upgrades comprehensively improve the user experience for the elderly. Senior mode provides a unified settings widget where users can adjust the font size and icon size. This makes using a smartphone much easier and more secure for users with poor vision, hearing, and/or touch coordination. Senior mode also allows users to enable the Enhanced protection feature in App Guard mode. This prevents the elderly from being manipulated into downloading malicious apps that could freeze or disable their phones or lead to fraud. The Call & message filters feature can also be enabled to filter out unwanted calls and messages, ensuring comprehensive device security.

In June 2024, the brand-new HarmonyOS NEXT was launched with upgraded features for Senior mode. It provides a more elderly-friendly and secure experience for elderly users.

Senior mode can magnify the UI display, optimize the home screen layout, block unwanted calls and messages, and offer more elderly-friendly features, making it easier and more secure for the elderly to use smart devices.



Go to **Settings > Accessibility features > Senior mode**, and follow the onscreen instructions to enable Senior mode.



## HarmonyOS NEXT offers improved versions of the following features in Senior mode.



### Display magnification

Multiple display settings have been integrated so that users can adjust the size of text and icons with just one tap. There are multiple size options, so elderly users are bound to find a suitable text and icon size.



### Call & message filters

Enabling Call & message filters alongside Senior mode can protect elderly users from unwanted calls, especially scam calls, and malicious websites.



### More elderly-friendly features

Setting personal emergency information can help first responders act swiftly and efficiently in an emergency.

With Simple display enabled, only the time and essential icons like Wi-Fi, mobile signal, and battery level appear in the status bar. This makes the UI cleaner and simpler.

With System haptics automatically enabled, the screen briefly vibrates after certain operations to let users know that they were successfully executed.

In addition to improving the basic user experience, HarmonyOS has also launched new features to cater to the needs of elderly users in a range of different scenarios. For example, family members can use the MeeTime app and its screen sharing feature to help their elderly relatives with their devices, anytime and anywhere. Some Huawei phones are equipped with the X button, which is a physical button on the side of the phone. Elderly users can choose up to nine frequently used apps and functions such as the flashlight, payment QR codes, transportation QR codes, and QR code scanning, which will appear when they double-tap or tap and hold this button. Huawei has been continually improving the elderly-friendly features and user experience to enable elderly users to enjoy the convenience and benefits of digital technologies.



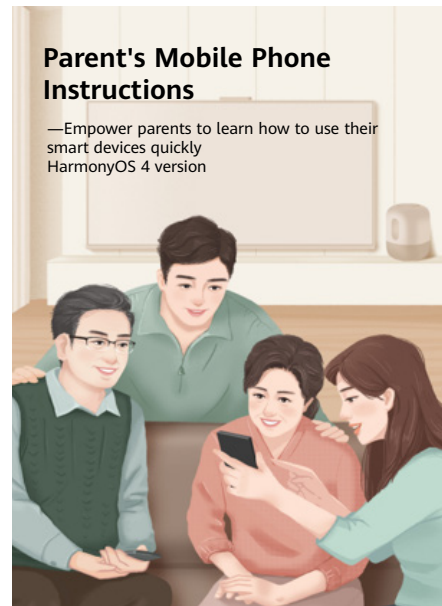


## Embracing digital life together with the elderly

Huawei has built a one-stop learning platform tailored to the needs of elderly users. Through diverse online and offline enablement activities, seniors can quickly master the use of mobile phones, easily tackle any problems they encounter during day-to-day use, and embrace a digital life with confidence.

### Parent's Mobile Phone Instructions

Huawei has developed the *Parent's Mobile Phone Instructions* guide which explains how to use the most common features and functions. The scenario-based instructions make it easier for elderly users to master the use of their phones. The content is continually updated and it is now on its eleventh edition. From 2023 to 2024, more than 500,000 paper copies were printed. More than 1 million copies of the eleven editions of this guide have been distributed to elderly users. Free copies are available at Huawei customer service centers, authorized experience stores, etc. A digital copy of these instructions can be obtained from the official Huawei Device WeChat account.



On special occasions such as Mother's Day and the Double Ninth Festival, the Tips app and Celia Suggestions will recommend these instructions to elderly users. After reading these instructions, users can touch related content to directly go to the corresponding settings screens. This has been designed to help make it as easy as possible for elderly users to get to grips with their devices and make any necessary changes to the settings.

### Teaching the elderly to use smartphones

Huawei periodically runs the "Bring Digital to You" course for elderly users. Professional trainers teach elderly users about basic phone operations, phone security, health, easy travel, and social entertainment. Users can book and take these courses at more than 5,000 Huawei authorized experience stores in China. Staying true to the goal of making digital design more inclusive and sustainable, these courses cater not only to Huawei mobile phone users, but also provide product knowledge beyond the HUAWEI brand.

Huawei sought support from local communities, universities for the elderly, and nursing homes in order to organize such educational initiatives in the most comfortable and convenient venues available. For the year ending June 2024, Huawei conducted more than 6,000 training activities in residential communities.



Non-profit courses help the elderly learn to use smartphones in a residential community.

# Education and Health

## Using technology to affect change

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- **240**

HUAWEI EduCenter has cooperated with more than 240 partners to build a high-quality education platform.

- **19**

HUAWEI EduCenter has launched 19 professional learning services.

- **2.54M**

HarmonyOS has attracted 2.54 million developers.

- **4.35M**

More than 4.35 million people are using HarmonyOS Ecosystem Knowledge Base.

- **30,000+**

Huawei has organized open classes at 144 universities and colleges, and more than 30,000 students have benefitted.

- **18,000+**

HFS in China has organized more than 18,000 Discover HUAWEI sessions.

- **14M**

HUAWEI Research has engaged over 150 partners and more than 14 million users.







# Enabling all-round development through the HarmonyOS ecosystem

## Intelligent education platform: Making education accessible anytime, anywhere

Together, education and health are one of the four strategic directions for the sustainable development of Huawei Device. To provide suitable learning materials for users of all ages, we have integrated

online education resources and built an intelligent education platform, so that anyone can access high-quality learning materials anytime and anywhere.

### HUAWEI EduCenter

HUAWEI EduCenter is committed to building a professional education and learning service platform for primary and secondary school students and preschoolers. It provides smart learning services and experiences to Huawei smart device users by gathering insights into different learning scenarios, integrating software and hardware technologies, and leveraging diversified ecosystem content.

EduCenter works with more than 240 of the best education partners. It integrates subject-specific

content based on the national curriculum and provides premium learning resources and services for primary and secondary school students and preschoolers by leveraging software-hardware synergy and ecosystem advantages. The platform also helps children practice and master effective study methods. In addition, EduCenter offers a system-level solution for parents looking to effectively guide their children's education and help their children develop self-discipline and independence.



### Parental Care

It is important to enable children to embrace the convenience of tech-enhanced learning, and teach them to use smart devices safely and healthily. EduCenter comes with the system-level Parental Care feature, which allows parents to restrict app access and usage time. The feature also supports app grouping, which can help parents ensure that

entertainment apps are only accessible after certain learning tasks have been completed. In this way, children learn to balance study and play. With Parental Care, parents can remotely manage and control their children's devices from their mobile phones, and view the device usage status and logs at any time.



## Learning Space

Learning Space provides systematic learning services and a one-stop learning platform for primary and secondary school students. Focusing on homework, pre-class preparation, revising, and other learning phases, it delivers immersive learning experiences. EduCenter Learning Space provides AI learning tools to help children work more efficiently, and develop better habits around finishing and checking their homework independently and correcting mistakes. This feature can also introduce children to lesson content before class and help them review it after class to improve understanding and retention.

Learning Space provides top-notch learning resources and suitable apps tailored for primary and secondary school students. With parental guidance, children can use these tools to learn self-discipline and strike a healthy balance between study and play.



## Kids Corner

Children under 6 are very curious about the world around them and they tend to be keen to explore. Exploratory play is paramount for their development as it develops their minds, senses, and cognition. EduCenter Kids Corner is designed to help young children explore the world by listening, watching, reading, and playing. Kids Corner provides high-quality content on expert-selected topics. Parents can easily gain access to the resources, which include more than 20,000 videos, 18,000 audio files, 1,800 coloring books, and many interactive apps. Popular content includes copyrighted award-winning interactive coloring books, especially those based on Disney characters, and content about Becky Bunny and Barry Tiger. Kids Corner uses UI designs and interaction modes that children find amusing and engaging, allowing them to learn in a fun and relaxed way. It keeps children interested and curious while providing system-level parental guidance and eye-care features, and thus creates a healthy environment in which children can thrive.



EduCenter is now available on tablets, smartphones, and kids watches. It will continue to collaborate with ecosystem partners to improve the quality and convenience of home-education services.



# Handwriting apps: Inspiring creativity and capturing inspiration anytime, anywhere

In the digital era, handwriting apps significantly reduce people's dependence on paper. Such apps, together with a tablet and stylus, enable users to unleash their creativity whenever inspiration strikes, no matter whether they are at school, in the office, at home, or on a trip. These apps also facilitate sharing and collaboration. Teams can conveniently share notes and artistic designs in real time, and discuss and modify them remotely, so that location is no longer a barrier to creativity.

## HUAWEI Notes

HUAWEI Notes is an app which offers students premium digital note-taking tools. Thanks to Huawei's strong understanding of different learning scenarios, years of investment and experience in the handwriting app field, and comprehensive innovation, Notes can provide users with a smarter, more efficient, and more user-friendly way to take notes. Currently, Notes has established partnerships with multiple universities and colleges. Promotional activities are making it more and more popular with students. Huawei is continually improving the core user experience.

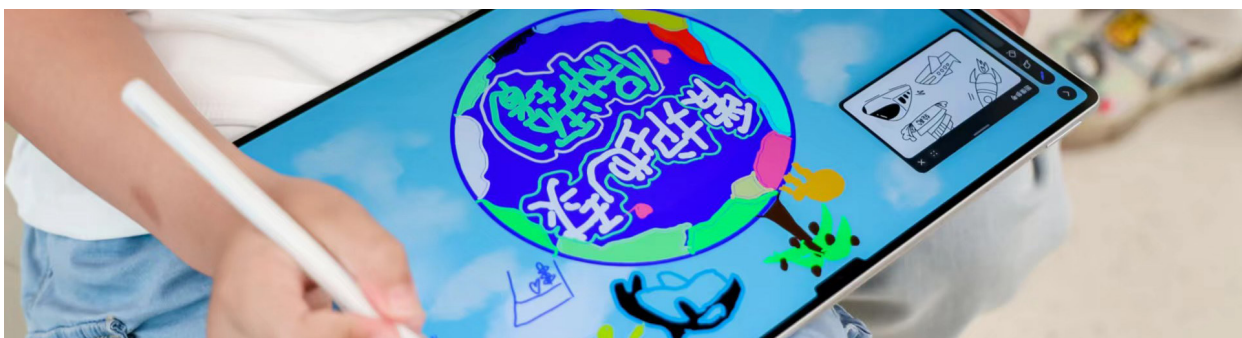
In the future, Notes will further enhance the quality of its tools and services across all scenarios. Huawei aims to make Notes the go-to app in the paperless learning field.



## HUAWEI GoPaint

GoPaint is a powerful and easy-to-use painting app developed by Huawei for professional artists, designers, and painting enthusiasts. It provides advanced features for professionals, as well as drawing tutorials, manuscript templates, and other easy-to-use features for beginners.

GoPaint will continue to invest in experience and product innovation to enable more users to experience the fun of digital painting.



## Building the HarmonyOS ecosystem together

As the creator of and advocate for the HarmonyOS ecosystem, Huawei is committed to building the HarmonyOS ecosystem alongside its partners, guided by the principles of openness, cooperation, and mutual benefits. The aim is to create value for consumers and opportunities for all parties, and to create a positive cycle of ecosystem growth. In the connected intelligent world, the HarmonyOS ecosystem will focus on technology innovation and provide more benefits to consumers. In terms of privacy protection and user experience, it is an open and win-win ecosystem which is simple and easy to use and which offers exceptionally smooth operations and robust privacy security.

By June 2024, 2.54 million HarmonyOS developers had participated in the HarmonyOS ecosystem, and the individual course enrollments on the HarmonyOS Ecosystem Knowledge Base platform reached 4.35 million.



# 2.54M

HarmonyOS developers

# 4.35M

individual course enrollments on the  
HarmonyOS Ecosystem Knowledge  
Base platform

### HarmonyOS evangelists: Torchbearers in the new era

"As evangelists, we do everything we can to help HarmonyOS thrive," said Professor Liu, from Nanjing University, who introduced HarmonyOS into the curriculum so that students could develop a strong understanding of the core technologies and app development process required for the next-generation smart device OS while also enhancing their learning and practical skills in related fields.

As Einstein once said, interest is the best teacher. Yang Xingxue, a history teacher at Shenyang No.5 High School, embodies this perfectly. After teaching himself HarmonyOS programming, he developed courses to help interested students explore and gain a deeper understanding of HarmonyOS.

There are many HarmonyOS evangelists like Mr. Yang and Professor Liu. Zhang Rongchao, an expert in the HUAWEI Developer Experts (HDE) program, wrote the first book about HarmonyOS—*HarmonyOS App Development Practices*. Professor Ding Fei from the Nanjing University of Posts and Telecommunications undertook a cooperative education project between industry and academia which was initiated by the Ministry of Education and titled "Developing the HarmonyOS Curriculum and Experimental Systems within the Context of New Engineering Disciplines". Zhu Xinrong, an associate professor at Sanda College in Shanghai, led more than 500 students to obtain the HarmonyOS certificate. Liu Anzhan, an associate professor and Master's supervisor at the Zhongyuan University of Technology, was the first to offer HarmonyOS development courses at a university, and his online courses have already attracted more than 200,000 students.

### Individual developers: Trailblazers

Qin Huidong, who instructs the app development team at Peking University, led a team of students with an average age of less than 24 to develop a HarmonyOS native app named "Peking University". With this app, students at Peking University no longer need to search for services. Instead, intelligent services will proactively reach them. "HarmonyOS can accommodate more devices, scenarios, functions, and capabilities. With HarmonyOS, we can start as independent developers and gradually grow into mature developers," said Zhang Zisu, a member of the team.

Chen Shengge, a community doctor and HarmonyOS developer, said, "With HarmonyOS, I have infinite possibilities." Driven by his passion for innovative technologies, he started programming and developing apps. He became an expert in the HDE program and successfully developed and released multiple apps and atomic services. He is also an active member of a variety of HarmonyOS technology communities, and helps others interested in HarmonyOS development.

Inspired by his son Tico's guitar practice, HarmonyOS developer Ye Jiasheng used HarmonyOS Media Kit to develop a high-frequency metronome app named "Hi Metronome". Ye said, "This app not only makes guitar practice fun for my kid but also makes me rethink the value of being a programmer." He also shares his latest insights into HarmonyOS native app development in developer communities.



## Bringing developers together and inspiring innovation for a win-win ecosystem

### HarmonyOS Ecosystem Knowledge Base

As the HarmonyOS ecosystem continues to grow, HarmonyOS talent is expected to be in high demand. Huawei has offered app development training sessions to enterprises within the ecosystem via the HarmonyOS Ecosystem Knowledge Base, and so far, 3,409 enterprises have participated. The HarmonyOS Ecosystem Knowledge Base platform's online courses have drawn over 4.35 million individual enrollments. Additionally, 305 universities and colleges and 23 certification, training, and enablement organizations in China are also supporting the cultivation of HarmonyOS talent.



### HarmonyOS industry-academia cooperation projects

To boost the HarmonyOS ecosystem, Huawei is collaborating with universities and colleges to explore new forms of industry-academia cooperation, and deeply integrating HarmonyOS technologies into university curricula through teacher training and enablement, as well as course innovation. As of June 2024, there are more than 200 active HarmonyOS industry-academia cooperation projects in China.

### HUAWEI Student Developers (HSD)

HSD aims to inspire student developers to learn more about cutting-edge technologies and explore new opportunities through upskilling and practical experience. By June 2024, HSD had carried out over 300 activities, involving more than 300 campus ambassadors, at more than 400 universities and colleges.



## HUAWEI Developer Experts (HDE)

HDE is a program that recognizes individuals who demonstrate expertise in one or more of Huawei's development capabilities, and who are passionate about helping other developers improve their skills. The HDE program strives to nurture talented developers that can work together to build a global developer ecosystem. To date, Huawei has certified 55 HDE evangelists worldwide, 48 of whom specialize in HarmonyOS.

## HUAWEI Developer Groups (HDG)

HDG is a non-profit community for global developers who are driven by their passion for new technologies. HDG showcases the open capabilities of Huawei devices, and provides a platform for developers to share technical expertise and collaborate with one another. The platform has launched 108 activities in 30 cities across China in partnership with 100 organizers.

## Campus activities

Huawei's on-campus HarmonyOS open classes aim to leverage experts' knowledge and experience to provide scenario-based learning to help college students broaden their horizons, gain insights into industry trends, and improve their practical capabilities. Huawei has organized 178 open classes at 144 universities and colleges, and more than 30,000 students have benefitted.

During HDC 2024, more than 700 students from over 60 universities and colleges across China participated in the fourth HarmonyOS open class activity. Professors, HarmonyOS pioneer partners, HarmonyOS technical experts, and student developer representatives were invited to provide comprehensive enablement for student developers. Letters of appointment were issued to 50 campus ambassadors.





## HarmonyOS Developer Innovation Competition

The HarmonyOS Developer Innovation Competition 2024 was the inaugural HarmonyOS native app and atomic service development contest in China. It took place over the course of four months, and attracted more than 5,000 developers who formed more than 2,000 competing teams. The developers of 29 outstanding HarmonyOS native apps and atomic services won prizes and awards at the competition.



## Geekathon

The second HarmonyOS Geekathon lasted almost three months. 136 valid entries were submitted, and their variety showcased the features and capabilities of HarmonyOS NEXT. 14 of the 479 competing teams made it to the final, which took place during HDC 2024. There, contestants had 36 hours and access to the comprehensive and efficient HarmonyOS development tools and suites to complete their final tasks.

## CodeLabs

During HDC 2024, CodeLabs introduced 49 tasks related to HarmonyOS (including the HarmonyOS SDK) and HUAWEI GameCenter. After three months of cooperative efforts, more than 10 versions of the official Huawei consumer business website were produced. More than 1,400 developers signed in to CodeLabs, with over 800 successfully completing some of the different challenges.



## Discover HUAWEI: A consumer-oriented classroom

Discover HUAWEI, an activity organized by HFS, is not a traditional lecture-style activity, but rather an opportunity for guests to share their lifestyles and experiences. Based on consumer experience, Discover HUAWEI invites experts to provide engaging courses for different user groups and ages, such as the GoPaint courses for children and the Light Up Your Rings campaign for the public. It is designed to spotlight Huawei technologies during every activity.

Currently, there are 42 professional Discover HUAWEI trainers and they are supported by members of Huawei's R&D team. They have delivered nearly 18,000 courses to more than 21,000 consumers in China. Consumers can join these activities when they are shopping, or select their home city, view the course schedule, and choose the courses they are interested in on the My HUAWEI app or the official Discover HUAWEI website.



### HUAWEI Talk: Connecting to a greater world

HUAWEI Talk, another form of Discover HUAWEI, is an activity held by HFS to share knowledge with consumers. HFS invites experts in technology, culture, the arts, and other fields to speak with attendees in relaxed, open sessions, so that consumers can learn, get connected, and make new friends. Recently, Jiang Changjian, a humanities scholar from Fudan University, shared his life philosophy at the HFS in the MixC World, Nanjing. His wisdom and insights resonated deeply with the audience. Chen Yan, a Mao Dun Literature Prize winner, was invited to the HFS in Wangfujing, Beijing to share his insights into the process of literary creation.





## Huawei Summer Camp: Inspiring youth creativity

On June 29, 2024, 11 HUAWEI Flagship Stores in China hosted the "Huawei Summer Camp—GoPaint" activity. Children were invited to use Huawei tablets to create paintings related to the meaningful theme of "Protecting the Earth with Technology". This activity brought together GoPaint, Discover HUAWEI, and TECH4ALL, and focused on service experience to stimulate primary school students' creativity in a fun and engaging way.

During the summer vacation, from July to September 2024, we launched a series of Discover HUAWEI courses aimed at stimulating students' creativity. Discover HUAWEI trainers and experts from the GoPaint app product line held painting classes during these Discover HUAWEI activities. Primary school students were invited to create paintings themed around environmental protection to spark their creativity and increase awareness about environmental protection. We are dedicated to using technology to safeguard children's growth and inspire their independent creativity. This enables the comprehensive development of their bodies, cognition, psychology, imagination, and so much more.



Children's paintings themed around environmental protection

## Huawei Summer Camp to the Hongshan Forest Zoo: Protecting the Earth together with children

Everyone should treat nature kindly. Huawei invited camp trainees to visit its Nanjing Research Center to learn about how the company uses technologies to protect the environment. They also embarked on an overnight trip to Nanjing Hongshan Forest Zoo. Using Huawei's technology products, the children observed plants and animals firsthand, while also learning about respecting ecosystems and living in harmony with animals. They also created paintings themed around "Protecting the Earth with Technology". This activity plants the seeds of ecological awareness in the hearts of the next generation.



# Technological innovation boosts public health

## Designing competitive wearables

As global digitalization picks up speed, the fitness and healthcare industries are unprecedentedly embracing digital technologies for multiple reasons, including policies, technological upgrades, and market changes. Many are aiming to utilize health monitoring data to drive the digitalization and visualization of health, and make it easier for users to actively manage their health. However, they still face challenges related to digital health solutions. Wearables, which are durable, portable, mobile, and ready-to-use, are proving to be the way forward for personal health management.

Huawei is continually upgrading its fitness and health services to deliver consumer-centric, health-focused experiences to every person, home, and industry.

Advanced software and hardware make it possible for users to use Huawei's smart wearables to monitor blood pressure and analyze electrocardiograms (ECGs). These products help users monitor and manage their health in real time and enable the early detection of cardiovascular diseases such as atrial fibrillation, premature beats, and high blood pressure. Huawei's ECG app is now supported on smart wearables, giving users access to expert analysis of their ECG reports and professional health guidance from authoritative medical institutions. This enables more comprehensive health services.



## Ensuring health data security by giving users control over data authorization

Huawei Health provides a comprehensive mechanism for data security assurance and privacy protection. The privacy statement informs users of the purposes and methods of personal data processing. Before collecting and processing personal data, Huawei Health obtains users' consent. The data is uploaded to the cloud through an encrypted channel and can only be accessed by the users themselves. Users can view the privacy statement or withdraw their consent at any time.

Users have full control over their fitness and health data, and can delete any or all such data on the cloud as needed. They can also decide whether to authorize third parties to use their fitness and health data and can restrict access to specific data required by third-party services. Importantly, users can revoke these authorizations at any time. Huawei also provides a comprehensive mechanism for protecting data subjects' legal rights, including access, rectification, and erasure rights.



## Accelerating innovation in public health

In 2018, Huawei launched the HUAWEI Research platform to help partners efficiently conduct innovative research with digital health technologies while protecting consumer privacy. Huawei has made the framework of the Research app public and provides researchers with access to the sensor capabilities of its smart devices to help them recruit large numbers of participants and obtain valuable real-world data. Researchers are provided with tools for AI-based big data analysis that significantly improve research efficiency so that they can develop innovative apps and solutions.

HUAWEI Research cooperates with a number of research institutes, including 301 Hospital, the China International Exchange and Promotive Association for Medical and Health Care, Tongji Hospital Affiliated to Tongji Medical College of Huazhong University of Science and Technology (HUST), the Obstetrics & Gynecology Hospital of Fudan University, the China Sleep Research Society (CSRS), and Beijing Anzhen Hospital, which is affiliated with Capital Medical University. These institutions work with Huawei to research health-related fields like cardiovascular health, sleep, respiratory health, blood sugar, female health, and emotional wellbeing.



### Female health

#### Obstetrics & Gynecology Hospital of Fudan University—Female ovarian health research

In February 2024, the Obstetrics & Gynecology Hospital of Fudan University began recruiting subjects for a study of female ovarian health in cooperation with HUAWEI Research. Huawei wearable sensors such as the photoplethysmography (PPG) and negative temperature coefficient (NTC) were used to measure and analyze data such as the resting heart rate, basal body temperature, and menstrual cycle. This enabled the evaluation of the ovarian health status of female users, and the generation of risk warnings. This feature allows female users to conveniently and regularly monitor their health at home, fostering a virtuous cycle of routine checks, prevention, early detection, and timely intervention.



### Sleep health

#### CSRS—Research on Chinese people's sleep health

In February 2024, the CSRS initiated a study of sleep health in China in collaboration with HUAWEI Research. This study leveraged the sleep monitoring capabilities of Huawei wearables to analyze users' sleep health and provide informed guidance to help more people improve their sleep health.



### Emotional wellbeing

#### School of Basic Medical Sciences, Fudan University—Emotion and sleep improvement research

In February 2024, the School of Basic Medical Sciences at Fudan University initiated a study into emotional wellbeing and sleep improvement in partnership with HUAWEI Research. The goal was to provide comprehensive services including data measurement, an online emotional wellbeing assessment, information feedback, and personalized guidance for users to aid long-term emotion management and sleep health monitoring for a healthier life.



### Cardiovascular health

#### Beijing Anzhen Hospital, which is affiliated with Capital Medical University, and the Beijing Institute of Heart, Lung and Blood Vessel Diseases—Cardiovascular health trend research

In April 2024, Beijing Anzhen Hospital, which is affiliated with Capital Medical University, and the Beijing Institute of Heart, Lung and Blood Vessel Diseases jointly initiated a study of cardiovascular health trends in cooperation with HUAWEI Research to analyze distribution characteristics, changes, and correlation of cardiovascular health indicators and assess the risks of cardiovascular diseases. This research aims to help users proactively improve their health, enable early prediction of risks, and enhance the primordial and primary prevention of cardiovascular diseases.



### Cervical spine health, with the help of smart glasses

#### Joint R&D with the Department of Rehabilitation Medicine of the First Affiliated Hospital, Sun Yat-sen University

The built-in precise posture sensor monitors the duration and angle of users' head positions and generates a personalized cervical spine load-bearing report. Additionally, the glasses provide a verbal reminder when a user's head has been lowered for an extended period of time to help protect cervical spine health.

HUAWEI Research has passionately nurtured the development of innovative technologies and has worked with more than 150 partners to conduct research based on more than 14 million users. With new applications in practical digital health on the horizon, more and more partners are joining HUAWEI Research. HUAWEI Research seeks to bring together industries, schools, research centers, and hospitals to accelerate research and innovation on exercise, circulation, respiration, digestion, the nervous system, the endocrine system, and more. The goal is to promote all-round health and help prevent chronic diseases.

150+ partners

14M+ users

## Incubating innovative technologies and building a fitness and health ecosystem

For a decade, Huawei's fitness and health business has been incubating innovative technologies and building a fitness and health ecosystem. Huawei has remained committed to providing science-based intelligent fitness and health services to users worldwide, including people with disabilities.

An indoor ski simulation test site with a height-adjustable ski slope has been constructed at the HUAWEI Health Lab in Finland. Huawei Finland's research team used the HUAWEI TruSport system to conduct tests and analyze aspects such as ski posture and knee flexion, fall prediction, and skill evaluation, and successfully created a reliable, accurate, and innovative sports physiology algorithm which will provide skiers of all levels with accurate science-based guidance and professional assistance.

Huawei actively explores custom fitness and health indicators, such as Activity reminders and Activity rings. These science-based features enable fitness and health management for people with disabilities, such as wheelchair users, and help them assess their physical capabilities and exercise needs. Huawei is committed to bringing the benefits of scientific and technological innovation to everyone.





In addition, Huawei participated in iCARE4CVD, one of the most influential cardiovascular research projects in Europe. This project was jointly initiated by the European Society of Cardiology and the European Association for Cardiovascular Prevention and Rehabilitation to explore comprehensive and personalized management solutions for patients with cardiovascular diseases through multidisciplinary collaboration. As the only wearable device vendor participating in this project, Huawei helped researchers collect and analyze patients' heart rates, blood pressures, and exercise data with patients' consent. Huawei also spearheaded the Patient Engagement & Motivation research sub-project. These efforts have enabled users worldwide to better manage their cardiovascular health.



## Building a quality management system for medical devices

There is a growing demand for smart wearables with practical health functions. Huawei Device has been building a quality management system for medical devices since 2020 and has registered and certified medical products to ensure that wearables with medical functions meet both international and Chinese quality standards. It also ensures that the full lifecycle of medical products, from design and development, to production, storage, circulation, installation, servicing, and end of service and disposal, complies with all relevant regulatory requirements and standards.

Huawei has established a quality management system for medical devices based on laws and standards such as EU Medical Device Regulation (MDR), ISO 13485, and Good Manufacturing Practice for Medical Devices (GMP). The company has incorporated the core requirements of this system into its business processes to ensure product quality, security, and effectiveness. Huawei Device obtained the ISO 13485 certification in September 2022.

By June 2024, Huawei had obtained six registration certificates from China's National Medical Products Administration (NMPA) for its GT 2 Pro ECG model, wrist ECG and blood pressure monitor on WATCH D, GT 3 Pro ECG model, ECG app, PPG app (pulse wave A-fib and premature beat alert software), and OSA app (sleep apnea screening software).

In addition, Huawei's wrist ECG and blood pressure monitor on WATCH D and its ECG app have both obtained the CE certification under the EU MDR. Huawei continues to build and improve healthcare systems in countries and regions outside China, with the aim of registering and certifying its products and providing secure and reliable products and services to consumers to facilitate their health management.

# Environmental Protection

## Harnessing technology for a better planet

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### ◦ 900M

As of June 2024, over 900 million devices have been installed with HarmonyOS, significantly enhancing the value of these products.

### ◦ 720M kWh

In 2023, Huawei used more than 720 million kWh of electricity from renewable energy sources, a year-on-year increase of 84.2%.

### ◦ 450 metric tons

Huawei's green transportation solution, boasting new energy vehicles, can reduce carbon emissions by more than 450 metric tons every year.

### ◦ 10M

Repair of faulty components, such as mainboards and screens, by our high-level repair centers has helped extend the service life of over 10 million devices.

### ◦ 14

Huawei currently uses 14 different types of renewable materials, including paper, copper, plastic, iron, aluminum, tin, gold, silver, and cobalt, in its products, in a bid to expand material reuse.

### ◦ 3,150 metric tons

Huawei's product transportation processes reduce carbon emissions by more than 3,150 metric tons annually.

### ◦ 36,000 metric tons

It is estimated that, thanks to product manual optimization, 1,280 metric tons of paper will be saved, reducing carbon emissions by more than 36,000 metric tons.

### ◦ 1M

Nearly 1 million Huawei devices have been resold through Huawei's trade-in program.







We prioritize the sustainability of our products. By adhering to the fundamental principle of environmental protection compliance, we perform closed-loop management of product lifecycles, as well as sustainable production, through technological innovation. This allows us to minimize our impact on the environment without compromising product experience. We have consistently worked to enhance our environmental protection competitiveness, focusing on using safe and environmentally friendly materials, continuously facilitating energy conservation and emission reduction, and contributing to a circular economy.



### Using safe and environmentally friendly materials

In compliance with the laws and regulations on hazardous substances control, actively selecting renewable and other eco-friendly materials and actively conducting product lifecycle assessments to reduce the environmental impact of products.



### Continuously facilitating energy conservation and emission reduction

Through innovative practices, gradually reducing the carbon footprint generated during operations and by our products; and communicating energy conservation and emission reduction requirements to our suppliers to foster a green and low-carbon supply chain.



### Contributing to a circular economy

Improving product durability, designing products that can be updated easily, and optimizing the product recycling system—extending product lifecycles and enhancing product value through device refurbishment, second-hand phone certification, trade-in, etc.





# Reducing environmental impact throughout product lifecycles

## Application of eco-friendly materials

As the initial step of product design, Huawei prioritizes safe, eco-friendly, and renewable materials, so that closed-loop flow of materials is possible. This approach minimizes environmental impact while maximizing material utilization. In addition to providing consumers with eco-friendly products, Huawei's demand drives the development of the renewable materials industry.



### Safer materials

Huawei has established a hazardous substance management system in accordance with QC 080000 and passed third-party certification to ensure that its products, throughout their lifecycles, are healthy and safe for both their users and the environment. The QC 080000 certification recognizes that Huawei's quality management system is more systematic and standardized in terms of the end-to-end control of hazardous substances in products.

Since 2016, we have implemented hazardous substance controls for our smartphones that go beyond those required by laws and regulations. By designing products that use less hazardous substances, we have made great strides to protect our planet. In addition to complying with hazardous substance management laws and regulations, such as the China Restriction of Hazardous Substances (RoHS), as well as the RoHS Directive, and Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) from the EU, we have proactively eliminated substances that are still used in the industry, such as brominated flame retardants (BFRs), chlorinated flame retardants (CFRs), polyvinyl chloride (PVC), phthalate esters (PAEs), antimony trioxide, and beryllium and its compounds.

In 2023, we updated our *Specifications of Restricted Substances for Huawei Purchasing Materials*, adding control requirements on perfluorohexane sulfonic acid (PFHxS), per- and polyfluorinated alkyl substances (perfluorocarboxylic acids with a chain length of 9 to 14 carbon atoms [C9-C14 PFCAs]), mineral oil, and substances (e.g. lead) in portable batteries. To prevent hazardous substances from the very beginning, we require all prospective suppliers to sign the *Declaration of Non-use of Restricted Substances*, the *Quality and Environment Assurance Agreement*, etc. We also stringently review their environmental protection systems before beginning any form of cooperation.

To ensure product quality, we stick to safe and reliable materials, with special attention to the materials that will be in long-term close contact with humans. We have built an environmental protection certification and material analysis lab, which has been accredited by the China National Accreditation Service for Conformity Assessment (CNAS). This lab boasts cutting-edge equipment encompassing chromatography, spectrum, and mass spectrometry and is equipped with industry-leading capabilities for material analysis and testing. Moreover, we have established healthy material standards with reference to the world's leading industry standards, professional recommendations from toxicologists and dermatologists, and international laws and regulations. Through strict safety certification procedures, such as material design and selection, together with consistency assurance during mass production, we strictly control the quality of products to be launched so that they meet Huawei's requirements and pose no threat to consumers' health or safety.



### Selection of eco-friendly materials

One important measure that we have taken to protect the environment and promote the circular economy is by using premium renewable materials, which reduce our reliance on direct mineral sources. Huawei Device currently uses 14 different types of renewable materials, including paper, plastic, gold, copper, aluminum, cobalt, and tin, in its products. It is also working with its suppliers to explore how to better implement more quality, renewable materials. For example, among Huawei wearables, the HUAWEI WATCH GT 5 uses 100% renewable nylon for the braided part of its Blue composite strap, while the HUAWEI WATCH D2 uses 100% renewable gold and electroplated copper for its button FPC.

Plastics, as part of the materials for electronic products, are quite difficult to be reused. Therefore, it is essential that we use plastics that have minimal impact on the environment. Since 2013, we have used recycled and bio-based plastics widely in Huawei smartphones, smart watches, AR/VR devices, Bluetooth earphones, mobile routers, and other products, substantially mitigating the negative environmental impact associated with the manufacturing of petroleum-based plastics. Over 30% of the bio-based plastics that we use come from castor oil, which reduces carbon dioxide emissions by 62.6%, when compared with conventional plastics.

## Sustainable product packaging

We strive to cut down product packaging, especially by reducing and even eliminating disposable plastics, in favor of reusable and eco-friendly materials, without compromising product protection. In 2023 and 2024, we developed stack tools for small packaging, enabling automatic stack design and simplifying product packaging at one time. In addition, the requirements for package space utilization, as well as restricted use of disposable plastics, are specified in the *Sustainable Device Packaging Specifications*, which are integrated into Huawei product packaging.



### Small packaging

Sustainable product packaging requires careful design and lightweight materials. By minimizing packaging size and weight, we can improve space efficiency and reduce environmental impact throughout a product's lifecycle.

**Design optimization:** We optimize stack designs and reduce bonding structure. For example, by adopting this change, the package space utilization rate of HUAWEI Mate X5 is 7.5% higher than that of HUAWEI Mate Xs 2.

**Criteria optimization:** We actively improve testing criteria while adhering to industry practices and preventing over-packaging. For example, by doing so, the package space utilization rate of HUAWEI Vision SE3 75" is 3.8% higher than its predecessor.

**Reducing the quantity of packed goods:** We no longer pack accessories, such as earphones, adapters, and data cables, in the box, thereby reducing the size of packaging.



### Less plastic packaging

For product packaging, Huawei prefers more recycled paper, as well as paper materials from responsibly managed forests (FSC certified) that conform to the principles of sustainable management. As petrochemical ink hinders package degradation, Huawei uses 100% biodegradable soy ink instead. Its eco-friendly packaging materials have passed the international compostable certification, which means they are biodegradable under industrial composting conditions. In 2024, it introduced an eco-friendly packaging solution—using 100% recycled paper for the first time ever—in a project for its customer, Deutsche Telekom. This initiative brought the utilization of recycled resources into a virtuous cycle, earning Huawei the GREEN MAGENTA label for the environmental protection feature.

Huawei constantly improves the packaging design for its products and reduces and gradually eliminates disposable plastics from its packaging materials. The Mate series smartphones, for example, use special paper to replace the plastic film that protects the smartphones. It has also developed a kind of high-strength paper to replace plastic sealing labels for boxes. These changes are expected to reduce the use of disposable plastics by approximately 13 metric tons for every 10 million phones.

We have also developed a special kind of aqueous oil—which does not pollute the environment and is a viable alternative to the use of disposable plastics—to replace the plastic film used for packaging. Such technology has been used in the packaging of the Pura series smartphones. By doing so, the use of disposable plastics will be cut by approximately 46.3 metric tons for every 10 million Huawei phones. These measures will also be applied to our other smartphones, tablets, PCs, earphones, watches, and bands, among others, to deliver on our promise of providing consumers with eco-friendly products.

### Eco-friendly packaging, thoughtfully designed for customers

The gift boxes we deliver to our customers are made of 100% recycled raw materials certified by FSC. The packaging surface is made of environmentally friendly, wear-resistant, and water-based ink instead of PP plastic films, fully removing plastics from packaging. This packaging can be recycled and has earned from our customer the GREEN MAGENTA label.







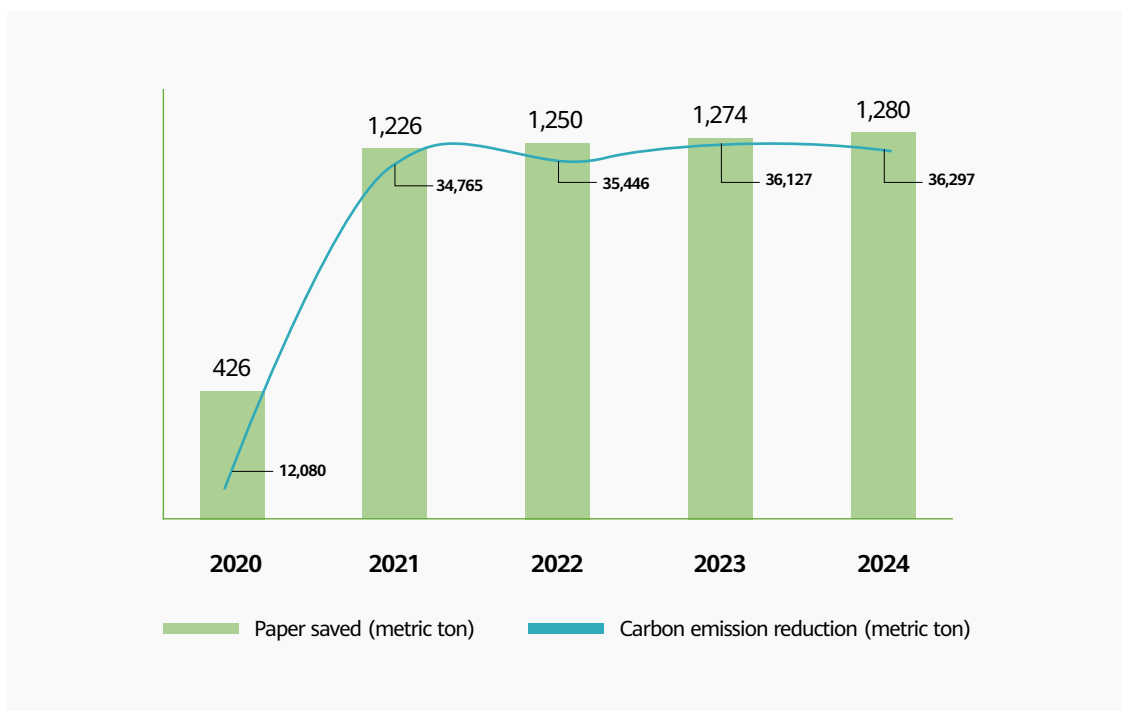
### Lighter user manuals

We are constantly redesigning our manuals to save paper and reduce wood consumption. In 2024, we continued to trim down our user manuals for new product categories, such as HUAWEI Vision and smart home products. Currently, this initiative has extended to a full range of devices, including smartphones, tablets, PCs, wearables, routers, CPE, audio devices, HUAWEI Vision, and smart home products, reducing the number of user manual pages by 88%.

We've also gone digital further with our on-screen Tips app, which offers consumers detailed and diverse information and guidance, making device usage a vibrant experience. It is estimated that in 2024, 1,280 metric tons of paper will be saved and carbon emissions will be reduced by approximately 36,000 metric tons.

**1,280** | 1,280 metric tons of paper will be saved.

**36,000** | Approximately 36,000 metric tons of carbon emissions will be reduced.



Note: The data in the preceding figure indicates improvements compared with 2019.



# Eco-friendly product certifications

By obtaining authoritative environmental certifications, Huawei demonstrates its implementation of environmental protection measures and sustainable development philosophy, proving that Huawei provides industry-leading products in terms of use of eco-friendly and safe materials, environmental friendliness, reduction of resource and energy consumption, etc. In the past year, many Huawei products passed environmental protection tests and received certifications.

## SGS green product certificate

Huawei products, including the HUAWEI Pura 70 series, nova 12 Ultra series, HUAWEI Pocket 2 series, FreeBuds Pro 3 series, and FreeBuds 6i, have earned the highest certificate for rating green products from SGS. This certificate indicates that Huawei products have reached the industry-leading level in the green, health, and safety field.



SGS green product certificate

## CQC environmental protection rating certificate

Huawei products, including Enjoy 70S and MatePad SE, earned an A classification from the China Quality Certification Center (CQC), which is the center's highest environmental protection rating for electronic and electrical products. This certificate indicates that Huawei products are eco-friendly and are safe for people to use, as well as consuming less energy and other resources, achieving industry-leading environmental protection throughout their lifecycles.



CQC environmental protection rating certificate of HUAWEI Enjoy 70S

## China Environmental Labeling Certification

China Environmental Labeling Certification, commonly known as Ten Rings Certification, demonstrates that the certified product is of high quality, eco-friendly, safe, energy-efficient, and more. Since 2017, MateBook series laptops have passed the China Environmental Labeling Certification. So far, a series of PC products, including monitors, desktop computers, printers, and all-in-one PCs, have also been certified.



Ten Rings certificate of Huawei Qingyun W515

## Green Product Mark from TÜV Rheinland

Obtaining the Green Product Mark from TÜV Rheinland, based in Germany, indicates that a product has reached the world's leading level in hazardous substance management, energy efficiency, use of renewable materials, product lifecycle assessment (LCA), and more. HUAWEI Mobile WiFi has obtained the Green Product Mark, which recognizes Huawei's implementation of green technologies and eco-friendly philosophy.



Mobile WiFi Green Mark certificate

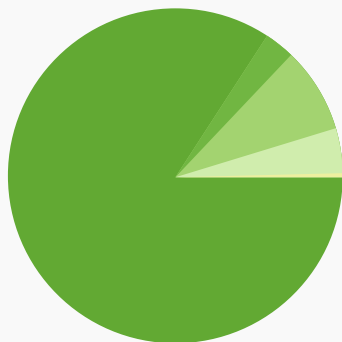


# Reducing carbon emissions from products and operations

## Measuring product carbon footprint

Reducing product carbon footprint is critical for Huawei Device towards slashing its overall carbon emissions. Huawei has established product carbon footprint measurement and LCA methods based on ISO 14040, ISO 14044, and PAS 2050. It has conducted a thorough analysis of the carbon emissions of devices, including flagship smartphones and tablets, from production to disposal. By identifying the key contributors to emissions, it has been able to refine the product design process to minimize environmental impact.

Product carbon footprint measurement covers the carbon emissions and their environmental impacts throughout the entire lifecycle, including raw material purchase, component manufacturing, product processing, transportation, product use, and waste recycling. According to the product carbon footprint measurement, over 84% of Huawei products' carbon emissions are generated when raw materials and components are processed. Therefore, pushing upstream suppliers to save energy and reduce emissions, use renewable materials, and adopt other sustainable practices is important for us to reduce the carbon footprint of our products.



### Breakdown of HUAWEI Mate 60 Pro's carbon footprint

- 84.20% Raw materials and manufacturing
- 2.84% Product assembly
- 8.23% Logistics and transportation
- 4.60% Product use
- 0.13% Disposal

## Reducing carbon emissions from operations

A significant portion of carbon emissions from electronic products occurs during the manufacturing stage. To mitigate environmental damage that arises throughout product lifecycles and reduce their carbon footprint, Huawei has applied renewable and clean energy into its operations. It has improved the energy efficiency of its product manufacturing processes through energy saving means technically and managerially. It also requires its suppliers to set carbon emission reduction goals and implement them in a bid to reduce carbon emissions during Huawei product production.



## Greenhouse gas inspection

Greenhouse gas inspection helps clearly identify carbon emissions across fields and set scientific and feasible carbon emission reduction goals. Huawei inspects greenhouse gases in accordance with ISO 14064 every year, and its findings are reviewed by a third-party organization, before its carbon emission data is disclosed. The greenhouse gas emissions of Huawei Device totaled 468,400 metric tons of carbon dioxide equivalent (CO<sub>2</sub>e) in 2023.

Greenhouse Gas	Scope 1	Scope 2	Total
Emissions (CO <sub>2</sub> e)	27,200	441,200	468,400
% of total emissions	5.8%	94.2%	100%

Huawei Device's greenhouse gas emission data in 2023

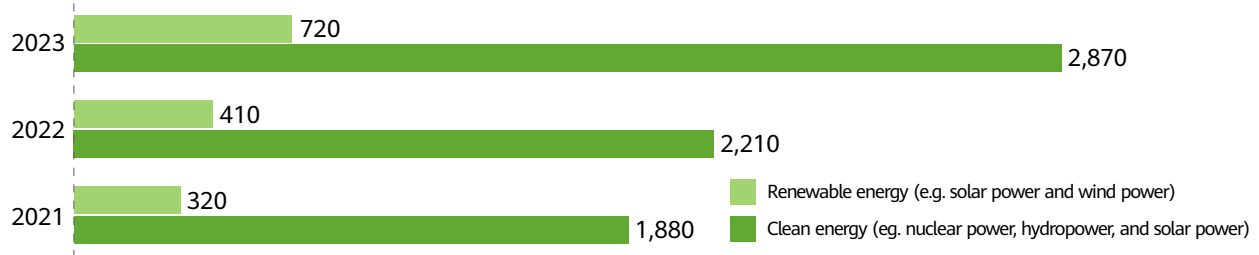
Scope 1: Emissions from greenhouse gas emission sources owned or controlled by Huawei

Scope 2: Greenhouse gas emissions from the generation of purchased electricity or heat

## Carbon emission reduction during operations

To reduce carbon emissions, countries and enterprises have shifted their attention to clean and renewable energy. At Huawei, more clean, including renewable, energy is used throughout its operations. Two examples of this are how we have already built PV plants on our campuses, and use clean energy to slash carbon emissions during our operations.

Unit: million kWh



Renewable and clean energy-generated electricity used by Huawei worldwide in 2021–2023

**720<sub>M</sub>**

The electricity from renewable energy sources in 2023 reached more than 720 million kWh.

**51%**

The electricity from clean energy sources in China is approximately 2.87 billion kWh, accounting for more than 51% of the total electricity consumption (about 5.6 billion kWh).





## Carbon emission reduction across the supply chain

Huawei values sustainability in its global supply chain, and works with partners to facilitate the supply chain transformation to green and low-carbon development and mitigate the threat to sustainable development. It joins industry chain partners' efforts to reduce carbon emissions by collecting statistics on carbon emissions and reporting them, setting scientific carbon emission reduction goals, working towards such goals, etc.

### Huawei's fourth Supplier Carbon Reduction Conference

On July 12, 2024, the Huawei Supplier Carbon Reduction Conference was held at the Huawei Industrial Base in Bantian, Shenzhen. More than 1,000 global suppliers attended the conference on-site or online. The event, themed "Green, Low-Carbon, and Shared Promising Future", saw attendees discussing ways of implementing green and low-carbon development, all with the aim of building a green, low-carbon, and sustainable industry chain together. Two of Huawei Device's suppliers won the outstanding supplier award for carbon emission reduction due to their outstanding performance.



A moment of Huawei Supplier Carbon Reduction Conference

Huawei has proposed the carbon emission reduction management requirements of "strong organization, accurate data, goal setting, and action" for suppliers. Every year, it assesses its suppliers' carbon emission reduction performance by examining the suppliers' contribution, action, etc.



#### Supplier selection strategy

We have gradually incorporated carbon emission reduction indicators into our supplier selection strategy and determined the shares awarded to suppliers accordingly.



#### Carbon footprint capability building

We encourage leading suppliers to analyze their products' carbon footprint in advance and take preventive action towards reducing their carbon footprint.



#### Supplier role model selection

We have commended and awarded excellent suppliers in terms of carbon emission reduction, and urged suppliers who failed the carbon emission reduction goals to ramp up their efforts.

The carbon emission data of some suppliers has been verified by third parties, recognizing them with ISO 14064 certification. Some suppliers have even acquired ISO 50001 (energy management system) certification, which recognizes their systematic energy saving and emission reduction capabilities. Overall, this makes emission reduction targets for suppliers more achievable. Furthermore, suppliers opt to use clean energy when manufacturing Huawei products, such as purchasing green power, building distributed PV plants, and using clean and renewable energy including wind and thermal energy.

## Longer product lifespans

When designing products, we fully consider their service life and select durable materials in order to enhance hardware system reliability. We conduct strict durability tests on our products in multiple scenarios before they are made available to consumers, thus ensuring that the products are of high quality and can run continuously and stably. We also provide consumers with regular system updates and convenient repair services, to extend product lifespans and enhance resource efficiency.

## Product reliability

To ensure product durability, hardware reliability should be prioritized. Huawei performs extensive reliability tests on products before officially releasing them.

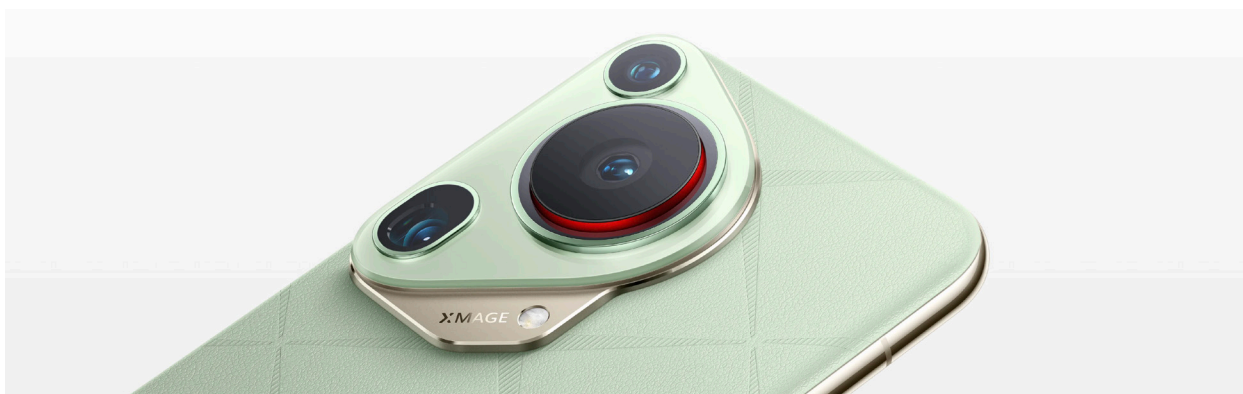
### Smartphone reliability practices

We have built reliability testing labs around the world. To comply with stringent international standards, we have conducted extensive reliability tests to ensure that each product can withstand and adapt to extreme conditions, including drops, impacts, and changes in temperature and moisture, so that products are more than equipped to handle everyday wear and tear.

Item	Mate 40 Pro	P50 Pro	Mate 50 Pro	Mate X3	P60 Pro	Mate 60 Pro	Mate X5	Pocket 2	Pura 70 Pro
Water resistance	IPX8	IPX8	IPX8	IPX8	IPX8	IPX8	IPX8	IPX8	IPX8
Dust resistance	IP6X	IP6X	IP6X	/	IP6X	IP6X	/	/	IP6X
Splash resistance	Water-sprinkling	Water-sprinkling	Water-sprinkling	Water-sprinkling	Water-sprinkling	Water-sprinkling	Water-sprinkling	Water-sprinkling	Water-sprinkling

Multiple Huawei products have obtained durability certification from Switzerland's SGS, such as HUAWEI Mate 50 series, which has become the first smartphone to obtain the five-star glass drop resistance certification from Switzerland's SGS. Thanks to Huawei Kunlun Glass, the drop resistance of Huawei Mate 50 series has increased tenfold compared with ordinary glass. HUAWEI Mate X5 has obtained the first Switzerland's SGS dual five-star certifications. Its durable Kunlun Glass exterior screen has obtained a five-star drop resistance certification, while its inner screen adopts a composite laminated structure with a non-Newtonian fluid material layer and is 4x more impact-resistant, making it the industry's first foldable display to obtain the Switzerland's five-star SGS impact-resistance certification.

For HUAWEI Mate 60 series and Pura 70 series, the fusion of an ultra-strong basalt body and ultra-durable brocade fiber material alongside their tougher second-generation Kunlun Glass gives the smartphone an added three-layer of protection and strength, as well as overall reliability, boosting drop resistance by 100%.





### Enhancing smartphone durability and reparability and extending product lifespan: nova smartphones as an example

2016	2018	2020	2022	2024
				
<b>nova</b> (first generation)	<b>nova 4</b>	<b>nova 8</b>	<b>nova 10</b>	<b>nova 12</b>
★ SIM card tray	★ SIM card tray	★ SIM card tray	★ SIM card tray	★ SIM card tray
★ Battery	★ Battery	★ Battery	★ Battery	★ Battery
★ Rear camera	★ Rear camera	★ Rear camera	★ Rear camera	★ Rear camera
★ Front camera	★ Front camera	★ Front camera	★ Front camera	★ Front camera
★ Motherboard	★ Motherboard	★ Motherboard	★ Motherboard	★ Motherboard
★ Display	★ Display	★ Display	★ Display	★ Display
★ Fingerprint	★ Fingerprint	★ Fingerprint	★ Fingerprint	★ Fingerprint
★ Rear cover	★ Rear cover	★ Rear cover	★ Rear cover	★ Rear cover
	★ Device body	★ Device body	★ Device body	★ Device body
	★ Speaker at the bottom	★ Speaker at the bottom	★ Speaker at the bottom	★ Speaker at the bottom
	★ Top speaker	★ Top speaker	★ Top speaker	★ Top speaker
		★ Rear camera lens	★ Rear camera lens	★ Rear camera lens
		★ Motor	★ Motor	★ Motor
			★ Sub-board	★ Sub-board
				☆ Kunlun glass cover
				☆ Vegan leather rear cover

★ Supports repair at a Huawei after-sales service center or a repair center.

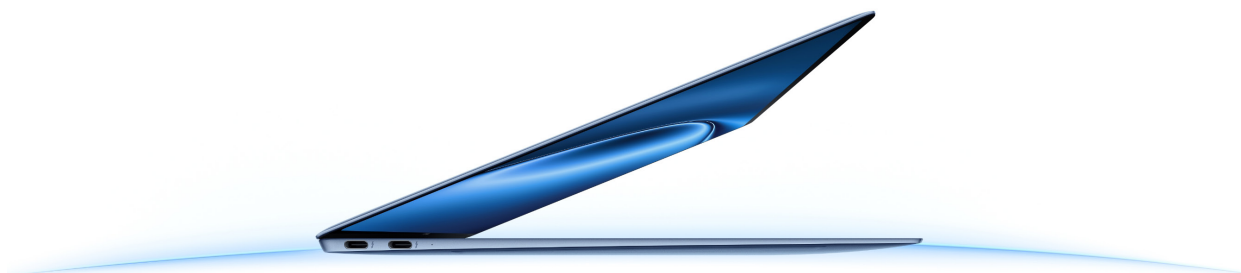
☆ Improves durability.

Huawei's after-sales service centers are able to resolve an increasing number of hardware problems, and consumers now have access to more than 3,000 of Huawei's after-sales service centers around the world for quick repair services, giving new life to their devices.

### PC reliability practices

To mimic real life usage, Huawei has designed wide-ranging reliability tests covering multiple PC usage scenarios, including lid opening and closing, key pressing, touch controls, scratching, extreme temperatures, and dust. All these tests aim to ensure consistent product reliability and user experience regardless of the environment.

The new MateBook X Pro is the industry's first-ever sleek laptop equipped with a flexible OLED. Although it weighs just 980 g, it boasts high resolution and low light reflection. Its hinge, with a smaller diameter, delivers an ultra-smooth opening and closing experience. Despite the lightweight and thin design of its mechanical parts and screens, it has passed comprehensive reliability and quality tests.



### Tablet reliability practices

Huawei has carried out extensive tablet reliability testing that takes into consideration the actual usage of tablets in daily work and life, and the use of tablets with accessories such as keyboards and stylus pens, covering extreme temperatures, dust, line drawing with a stylus pen, key pressing, and other possibilities. This aims to ensure that a tablet is highly durable whether used alone or with accessories in a variety of environments.

The MatePad 11.5"S, launched in 2024, features a PaperMatte Display that reduces reflection and protects eyesight. Although OLED screens are more prone to scratching than traditional glass, the product has successfully passed a number of reliability tests. The brand-new MatePad Pro 13.2" is larger and thinner than its predecessors, prompting us to conduct stricter reliability tests to ensure its resistance to faults such as bending, deformation, and screen damage, thereby enhancing the consumer experience.





### Wearable reliability practices

Quality and reliability is a core competitive strength of Huawei's smart wearables. To enable normal functioning of our products in varying environments, starting right from the design phase, we design all-around reliability tests for daily use, covering water resistance (during swimming and diving), sweat simulation, strap torsion, surface abrasion, and collision simulation, ensuring that our products are suitable for all scenarios.



### Earphones reliability practices

Reliability and durability is the cornerstone quality for any pair of earphones. Our earphones undergo rigorous reliability testing across diverse scenarios—extreme temperatures, sweat, and interactive tapping—mirroring their real-life use in daily activities and exercise, ensuring that they live up to expectations whatever the environment.



## Product updatability

We strive to provide an ultra-smooth system experience backed by convenient system updates, as it is important for enhancing product durability and user experience. HarmonyOS, with the HUAWEI Ark Engine, delivers significant improvements in graphics, multimedia, memory, and other performance, providing an impressively smooth user experience. Launched on April 18, 2024, the HUAWEI Pura 70 series features a brand-new HarmonyOS 4.2 that fuses the HUAWEI Pura series' core strengths—powerful imaging, aesthetic design, and unique style—with the simple and user-friendly HarmonyOS. This offers a more pleasing, intelligent, seamless, and secure system experience. Huawei announced at its May 2024 all-scenario product launch that 180 device types are eligible for HarmonyOS 4.2, offering a smooth and convenient user experience.



As of June 2024, over 900 million devices had been installed with HarmonyOS, bringing about a faster and smoother experience that can extend the service life of multiple devices through a system upgrade. This maximizes product value, reduces electronic product scrapping, and promotes environmental protection and circular economy development.

## Product repairability

Huawei has built a global network for accessible repair services, providing users with more reliable and affordable repair plans, supplemented by high-level repair centers, which offer more specialized repairs. Access to reliable and affordable repair services extends the lifespan of each product and slashes potential waste, ensuring that device replacement is no longer the only option for users facing a product breakdown.

Since 2020, Huawei's repair services for mainboards, screens, and other parts have extended the life of over 10 million devices.

Our device repair services now cover a wide range of devices, from smartphones to HUAWEI Vision, smart speakers, watches, bands, wireless earphones, smart glasses, routers, and beyond.





## A more convenient repair network

To improve our repair service, Huawei has adopted a three-tier repair system.

1. It provides users with self-service solutions, so that frequent software problems can be resolved at home.
2. It provides on-site one-hour repair services at customer service centers, for greater convenience. In 2023 and 2024, Huawei customer service centers provided on-site services, including consultation, device replacement, and board replacement, for more than 10 million devices.
3. Devices that can't be repaired on-site are sent by customer service centers to Huawei's high-level repair centers.

## More affordable repair plans

Affordable repair services increase the likelihood of consumers repairing their device rather than purchasing a new one, thereby maximizing resource efficiency.



### Flat rate battery replacement

Every month, this program provides affordable battery replacements to more than 300,000 consumers.



### Discounted flat rate for repairs

This program maximizes component reuse, ensuring top-tier, cost-effective repair services.



### Internal storage upgrade for smartphones

The new storage chips boast larger internal storage that allows users to store more and extend the lifespan of their smartphones.



### Refurbished mainboards and screens

We have launched a refurbished mainboard campaign for device models sold in the Chinese mainland. Users can enjoy access to a Huawei-manufactured mainboard at a discounted price of up to 70%, instead of directly replacing their faulty device. Our system for circulating screens that are no longer under warranty has been broadly promoted across many countries and regions outside China and improved resource efficiency.



### External screen repair

If the internal screen of a smartphone with a cracked external screen is actually intact, only the external screen needs to be replaced. This helps users cut out-of-warranty repair cost. Some Huawei device models are eligible for Kunlun Glass, delivering significantly enhanced drop resistance.



### HUAWEI Care+

HUAWEI Care+ is a comprehensive protection service, offering exclusive coverage for devices to reduce repair costs. For smartphones, it consists of flexible two-year and one-year plans. The former includes accidental damage protection, extended warranty, and battery replacement services, while the latter includes one-time screen protection service.

# Greener transportation

## Low-carbon and eco-friendly logistics and packaging

To reduce excessive packaging during shipment, streamline transportation, and slash carbon emissions, Huawei has implemented several e-commerce logistics optimizations: eliminating paper shopping lists, phasing out outer waterproof packing bags for express service, cutting down on carton and tape use, promoting zero-plastic packaging, improving package space utilization, and more. These measures reduce more than 2,700 metric tons of carbon emissions during the transportation of Huawei-operated commodities every year.

Measure	Description	Environmental Protection Achievement
Eliminating paper shopping lists	This initiative gradually eliminates the paper shopping lists packed with goods, saving nearly 16 million pieces of A4 paper annually.	1,980 metric tons of carbon emissions reduced
Phasing out outer waterproof packing bags for express service	Approximately 12 million parcels are delivered annually without using waterproof bags, reducing the use of plastics by more than 2.4 million square meters.	460 metric tons of carbon emissions reduced
Reducing carton and tape use	For some products, we have used simple bubble bags instead of cartons for outer packaging. This helps save more than 6 million cartons and cut adhesive tape use by over 3.3 million meters a year.	174 metric tons of carbon emissions reduced
Promoting zero-plastic packaging	Zero-plastic packing boxes are customized for certain products, with plastic films and fillers eliminated from gift boxes. In 2024, an estimated 2.3 million parcels will be delivered in zero-plastic packaging.	135 metric tons of carbon emissions reduced
Improving package space utilization	We have used big data analytics to study e-commerce order patterns. This analysis has enabled us to redesign our express cartons, resulting in a 10% reduction in average carton size.	12% higher in space utilization rate

\* Annual data period: June 2023–May 2024

## Green and speedy logistics

Huawei optimizes transportation solutions to reduce the carbon footprint caused during transportation. Since 2023, it has taken the following measures to improve the sustainability of transportation processes and reduce carbon emissions by over 450 metric tons annually: using new energy vehicles and clean energy freighters, reducing paper documents, simplifying packaging, promoting recyclable turnover boxes, etc.

Measure	Description	Environmental Protection Achievement
New energy vehicles used for shipment in China	Since 2023, 300 new energy trucks have been used to replace fossil fuel-powered vehicles in China, reducing carbon emissions by 300 metric tons every year.	300 metric tons
Clean energy freighters used for international sea transportation	Clean energy freighters are used for international transportation, reducing carbon emissions by 100 metric tons a year.	100 metric tons
Eliminating paper handover documents	By reducing 1 million pieces of paper used for handover documents each year, Huawei achieves an environmental impact equivalent to planting 50 trees annually.	50 trees
Streamlined logistics packaging materials	By optimizing the packaging materials for products such as PC and HUAWEI Vision, Huawei reduces 5,000 medium-sized packing boxes and 150 metric tons of pallets annually, which is equivalent to planting 9,500 trees.	9,500 trees
Promoting recyclable turnover boxes	Huawei's initiative to promote turnover box use for air transportation has successfully safeguarded products while eliminating the need for 30,000 square meters of stretch wraps and 720,000 plastic corner guards. This eco-friendly switch has resulted in a reduction of carbon emissions by a staggering 50 metric tons.	50 metric tons



## Green retail stores

We not only combine technology with stylish store design, but also ensure that our stores are as eco-friendly, sustainable, and safe as possible. We have carried out environment, health, and safety (EHS) self-assessments and ad hoc inspections at all our HFS, HUAWEI SmartHome, authorized experience stores, and authorized service centers. This covers end-to-end store management, including store safety design, decoration, power consumption, fire safety, and operations security. We are proud of our fast problem rectification rate, delivering a safe environment for consumers to shop. In 2024, all the problems spotted during EHS inspections of our stores were resolved.

We incorporate eco-friendly practices into all of our store's materials and decorations, where possible, signaling our commitment to building environmentally sustainable and smart stores. Not only do our stores conserve energy on lighting and air conditioners, we also consider how to monitor the air quality, temperature, and humidity, among others, in real time. Human body sensors are installed in areas where there is minimal human traffic (aisle, warehouse, etc.) to prevent energy from being needlessly used. All HUAWEI Flagship Stores built in 2023–2024 are equipped with an efficient energy management system, which intelligently measures and manages energy, helping the stores operate more efficiently and intelligently and become more sustainable.



HFS located at Shanghai East Nanjing Road

## Advocating green store construction

In November 2023, Huawei Device and the China General Chamber of Commerce (CGCC) co-hosted an engaging retail forum themed "Green, Innovative, Digital", uniting industry experts and leading practitioners to share insights and discuss green, innovative, and digital development of retail, thereby advocating the sustainable development of retail stores.

At the forum, Huawei proposed the goal of building green stores, and has since piloted and implemented the green requirements in its HFS under construction. Its aim is to elevate design quality and implementation through digital design, promote the recycling and reuse of construction materials by utilizing eco-friendly and energy-saving options, and enhance energy efficiency and consumer experience in the stores through digital and intelligent means.

Huawei has participated in the production of CGCC's criteria—*Assessment Specification for Green Commercial Shops*, which was officially released in May 2024. It encourages industry stakeholders to prioritize green and low-carbon store construction, aiming to foster sustainable development across the entire industry chain.

### Huawei's green store goal



## Recycling and reuse

Huawei is committed to recycling resources. It has actively built a circular economy business model to improve resource utilization and reduce waste, and has tirelessly improved its global recycling system by certifying second-hand phones, device refurbishment, trade-in, recycling, and many other programs. By doing so, it aims to both extend the life of its products and protect the Earth's resources.

## Trade-in and official refurbished products

### Trade-in, giving new life to nearly 1 million used devices

Reusing e-waste is a great way of protecting the environment, and one way of doing this is through our partners selling used devices via official channels in the second-hand market after they have been repaired and restored. For end-of-life devices, we hand them over to professional environmental protection enterprises, in an effort to cut down environmental pollution. Since 2021, we have introduced a one-stop trade-in program in China, allowing consumers to trade in their old device for cash coupons, which can be used to pay for new Huawei products. We have leveraged this trade-in program to get nearly 1 million devices recycled and reused.

### Official refurbished products, another option for consumers concerned with the protection of the environment

Huawei unveiled its refurbished Mate 40 Pro series and Mate X2, which were both classic models, in September 2022. Each of the official refurbished phones has been certified by Huawei, which follows a stringent refurbishment process that stretches from smartphone sourcing to product release. All official refurbished smartphones are newly packaged and come with original Huawei accessories. Adhering to its quality commitment, Huawei also provides a one-year warranty for each official refurbished phone.

In May 2024, we further launched our official refurbished MatePad Paper tablets, which shows our desire to expand our refurbishment business to more categories and provide consumers with renewed and affordable products.





# Resource reuse for a sustainable cycle

We embrace the principles of the circular economy during device repairs to reduce resource demand as much as possible. Used screens can be resold after they have been refurbished and passed strict tests, allowing users to purchase them at half the price of a new one, while the screens extracted from returned smartphones, watches, and other products can be used as spare parts for services if they meet quality standards. This means that consumers can replace their damaged screens with refurbished ones at a discounted price, saving money while cutting down waste.

We also scientifically scrap and derive further value from discarded materials, reducing the demand for raw resources. We cooperate with professional scrapping service providers and use modern recycling technologies, including sorting, disassembling, shredding, and extracting, to recycle precious metals, plastics, rare elements, and

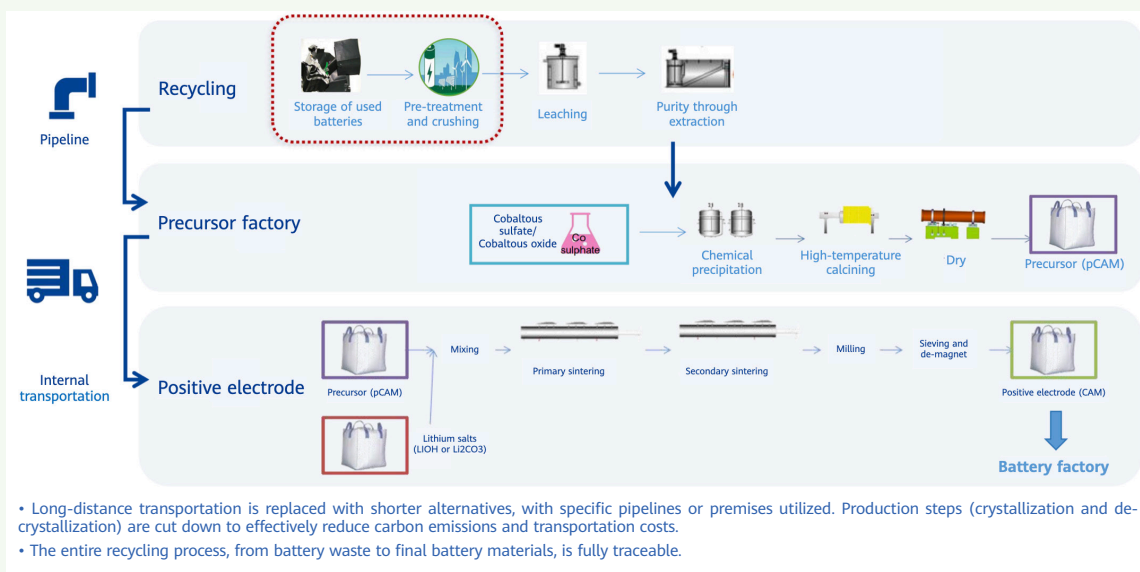
others so that materials can be used properly. One such example is the conversion of separator films from spent lithium-ion batteries into solid carbon by scrapping service providers. This technique reduces carbon dioxide emissions while increasing the recycling of metals such as lithium and cobalt. The extracted precious metals are reused by scrapping service providers as positive electrode materials of batteries, allowing green recycling of batteries.

For the year ending June 2024, Huawei had disposed of 2,971 metric tons of discarded materials in compliance with relevant regulations and, from them, extracted 548 metric tons of plastics, 309 metric tons of paper, 206 metric tons of copper, 198 metric tons of iron, 141 metric tons of aluminum, 271 metric tons of other metals, 202 metric tons of glass, 233 metric tons of cobalt sulfate, 29 metric tons of lithium carbonate, 21 metric tons of cobalt-containing materials, etc.

## Used battery recycling

Improper disposal of lithium-ion batteries from the large quantity of discarded electronic products can result in waste and significant environmental pollution. That's why Huawei works with partners to actively promote the recycling and reuse of used lithium-ion batteries, as a measure of end-to-end resource management.

During battery recycling and reuse, we substitute long-distance transportation with shorter alternatives, utilizing specific pipelines or premises. By cutting down on production steps such as crystallization and de-crystallization, we effectively reduce carbon emissions during transportation. The resulting precursor materials (pCAM), positive electrode materials (CAM), and other components can be repurposed as raw materials for new batteries. Moreover, the entire recycling process, from battery waste to final battery materials, is fully traceable.



Huawei's battery reuse process

# Corporate Responsibility

## Repaying trust with responsibility through technology

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### ○ 350,000

More than 350,000 of our users participated in the "I'm an Experience Officer" activity.

### ○ 100%

All of our new suppliers have obtained the QC 080000 certification.

### ○ 215

We've conducted 215 corporate social responsibility (CSR) audits on suppliers to create a responsible industry chain.

### ○ 1.5M

More than 1.5 million hours of training was delivered to 200,000-plus employees over the past year.

### ○ 86,000

So far, Huawei Device has created more than 86,000 jobs around the world.

### ○ 42,000+

Digital literacy training has empowered over 42,000 elderly individuals to master their smartphones.

### ○ 97M

Huawei products' earthquake warning function successfully alerted users to 63 earthquakes of magnitude 3 or above, totaling 97 million person-times.

### ○ HarmonyOS Security Architecture

Leveraging the brand-new HarmonyOS Security Architecture, HarmonyOS NEXT creates an app environment characterized by a pristine ecosystem, manageable privacy, and robust data security.

### ○ Highest possible level

Huawei's HongMeng Kernel was awarded the Evaluation Assurance Level 6 Augmented (EAL6+) certificate as part of Common Criteria for Information Technology Security Evaluation (CC). Huawei is the world's first smart device manufacturer to receive the certification for the highest possible security level in this particular domain.







# Consumer-centricity

## Building consumer trust through high quality

Huawei Device puts consumers at the heart of everything that the company does. Its goals are to ensure customer satisfaction and build trustworthiness. By adopting the net promoter score (NPS) and field failure rate (FFR) as its performance indicators, the company aims to enhance the quality of Huawei products and services, deliver an exceptional consumer experience, and build a comprehensive quality management system based on ISO 9001, in order to increase brand competitiveness and support long-term growth.

### Milestones in the quality management system development process

We are continuing to build and improve the quality management system based on our users' needs to drive comprehensive quality management. Huawei first earned the ISO 9001 certification in 1996, and since then, the company has gone on to earn the TL 9000, ISO 14001, ISO 45001, ISO 27001, and other management system certifications. In addition, Huawei Device has passed the IATF 16949 certification related to quality management systems for the automotive industry, the QC 080000 HSPM certification, and the ISO 13485 certification related to quality management systems for medical devices. Its efficient systems prioritize the consistent delivery of high-quality products, meeting and exceeding consumer expectations.

### Building high-quality products which offer premium experiences

Huawei Device has established hierarchical quality management organizations to drive the implementation of corporate quality strategies and policies. It incorporates strict quality requirements into the end-to-end process covering product planning, design and development, supplier management, incoming material quality control, production, sales, and after-sales services, in a bid to build a comprehensive quality management system that is based on user experience and which includes all employees, every process, and the full value chain.

Product quality (FFR) is the most basic requirement. Strict quality standards must be developed and complied with in each phase to strengthen end-to-end quality management. In terms of user experience (NPS), we actively collect consumer feedback through platforms such as VOC, always strive to meet if not exceed user expectations, and continue to provide premium products and services to consumers.

Quality leadership and culture is the very foundation we carry over to high-quality products that deliver premium experiences. Every year, we host various activities like the "520 Quality Month" and "Quality Star" to emphasize the importance of quality to all employees. These initiatives help create a culture focused on consumer-centricity, zero defects, and ongoing improvement.



Huawei Device's 2024 Quality Month activity



## I'm an Experience Officer

The "I'm an Experience Officer" activity, run by the Huawei Handsets Product Line, has effectively connected product experts and users, ensuring that user feedback is valued and integrated from start to finish. We actively engage with consumers, and listen to their voices that help us spot product problems and make continuous improvements. This ongoing dialog allows us to enhance consumer satisfaction and deliver better user experiences.

From June 2023 to June 2024, we held 256 "I'm an Experience Officer" activities, involving 350,000 dedicated participants. We engaged users through online surveys and offline interviews, gathering approximately 10,000 device experience comments, questions, and suggestions. A total of 47 "I'm an Experience Officer" activities were organized at Huawei research centers across the globe. Huawei employees provided professional suggestions for improvement based on the problems that they, their family, and friends encountered when using Huawei products. Anyone can serve as a product experience officer, customer service agent, and brand ambassador at Huawei.



## Protecting consumers' privacy security

Huawei firmly believes that in the digital and intelligent era, cyber security and privacy protection is the cornerstone for the development of an intelligent digital world. That's why it prioritizes cyber security and privacy protection over its own business interests. Its relentless innovations in HarmonyOS, security architecture, and technologies enhance privacy security in the AI era, continuously creating industry-leading experiences for privacy protection. With HarmonyOS NEXT as a foundation, its native security has been a game changer. The reconstructed bottom layer and experiences deliver an all-encompassing secure OS.

### HarmonyOS Security Architecture

The brand-new HarmonyOS NEXT redefines the security framework and architecture of the OS, embracing groundbreaking innovation. Leveraging the creative HarmonyOS Security Architecture, it establishes an app environment with a pristine ecosystem, controllable privacy, and robust data security.

#### Pristine ecosystem: Building order from the source

HarmonyOS NEXT establishes order from the source. Its stringent processes and mechanisms safeguard the inherent security of apps installed and operated by users, and thanks to secure architecture being a focal point of the development, release, and operational phases, the ecosystem's security is assured. Rather than depending on App Guard or App security center, users now have complete power to control the system security of their smartphone. An app, or code, cannot be released, installed, or run if it fails security checks. This ensures that the apps running on HarmonyOS NEXT are native pure, reliable, and traceable, eliminating users' concerns about viruses or malicious apps.

In addition, operational security is maintained throughout an app's runtime. Any violations result in immediate prohibition of the app's operation. In a word, maliciously created apps are intercepted at the source, and any maliciously running apps are quickly halted.

## Controllable privacy: From permission management to data management

For enhanced privacy control, a secure access mechanism has been introduced to revoke unreasonable permissions, transitioning the OS from permission management to data management.

To prevent apps from requesting permissions at will, HarmonyOS NEXT redefines the rules for apps that want to obtain private data and cancels nine types of unreasonable permissions, such as call records, SMS messages, calls, and access to the list of installed apps. This approach aids users in lowering management costs while mitigating privacy leakage risks.

The innovative secure access mechanism replaces permission management—a traditional privacy approach—to data management. For example, an app can only use the specific photo selected by the user instead of accessing the entire Gallery, with permissions granted on a one-time basis. For code scanning, an app can only obtain the result of the current scan without requiring camera access permissions. This principle also applies when granting access to Contacts, Clipboard, etc. This approach further restricts data acquisition, providing comprehensive protection for user privacy.

Users can thereby transition from permission management to data management, slashing the cost and complexity of managing intricate permission pop-ups.

- Previous permission management: Managing permissions was challenging for users. Apps retained access to data, often leading to excessive granting of private data.
- Current data management: Users no longer need to manage permissions. An app can only access data that the user has explicitly authorized, and access is granted one-time only.

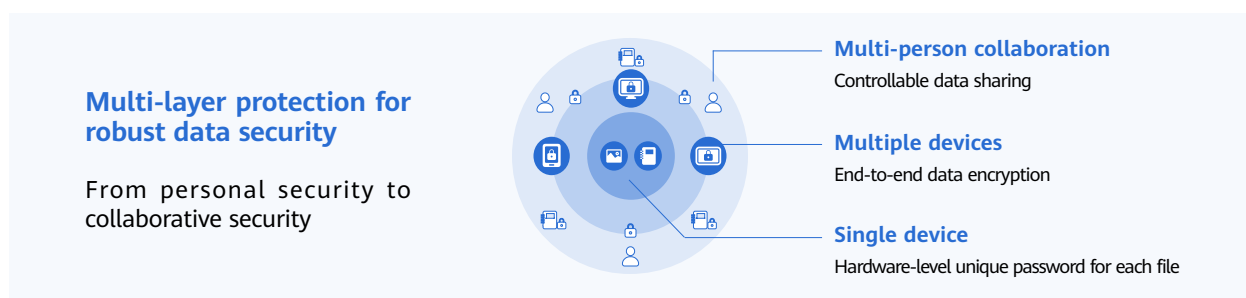


## Robust data security: From personal security to collaborative security

For robust data security, HarmonyOS NEXT pioneers groundbreaking innovations that transform personal single-device security, and subsequently multi-device security to multi-person, multi-device collaboration security. System-level file encryption ensures that only authorized users can access shared files on smartphones or tablets.

Multiple data protection mechanisms have been built. To begin with, hardware-level encryption assigns a unique password to each file, which ensures data security on individual devices, followed by hierarchy, classification, and end-to-end encryption, all of which protects data transfers across devices. Furthermore, controllable data sharing among multiple users guarantees data security, even when accessed on different devices.

Controllable data sharing for multi-person collaboration: When users typically shared important files, trust was such a vital factor. Now, with system-level file encryption, there is an extra layer of protection. Files are encrypted on smartphones or tablets, restricting access permission to only authorized users. This comprehensive system-level sharing mechanism isn't limited by apps or sharing channels and supports multiple file formats, allowing only authorized users to view the files.





## Youth mode

Huawei HarmonyOS NEXT boasts a brand-new Youth mode, which can be quickly enabled. Linked with the system, apps can automatically switch to Youth mode for complete protection. Parents can enable Youth mode on their child's devices and set them as a minor user and create a guardian password. HarmonyOS will offer minor identifiers and age group information. When Youth mode is enabled on a device, apps can access the identifier and age group information, automatically switch to the Youth mode, and prohibit inappropriate content. What's more, parents can control the device usage duration and available apps for minors.

Youth mode offers more comprehensive and in-depth protection for children using electronic devices to access the internet. Through device, system, and app synergy, this mode eliminates the limitations of traditional device time controls and app Youth modes, fostering a safe and healthy environment for minors to enjoy digital devices.

## End-to-end encryption of cloud space

Nowadays, vast amounts of personal data are stored on the cloud, leading to increased risks of data breaches and loss. These risks are significant and cannot be ignored by users. As the guardian of user data on the cloud, HUAWEI Mobile Cloud relentlessly innovates security and privacy technologies to enhance protection and reliability. It consistently upholds the principle that cyber security and privacy protection forms the cornerstone for the development of an intelligent digital world, maintaining a responsible image and brand identity rooted in security, reliability, and worry-free privacy.

End-to-end encryption ensures that users' sensitive personal data is secure, providing peace of mind when using HUAWEI Mobile Cloud.

## Industry certification

The OS kernel is the basis for ensuring OS security and privacy. In August 2023, Huawei's HongMeng Kernel was awarded the industry's first EAL6+ certificate as part of CC, the highest security level available in the field of general-purpose OS kernels. Huawei is the world's first smart device manufacturer to receive the certification in this particular domain. HarmonyOS NEXT has also proudly earned the CCRC EAL5+ certification, distinguishing itself as the first OS in the industry to achieve this milestone.

### CC EAL6+

HongMeng Kernel



### CCRC EAL5+

HarmonyOS NEXT



## Social recognition

- **May 30, 2024:** "Providing seamless AI life experiences through AI models and smart awareness" and "innovating technologies to enhance user privacy security across various scenarios, including driving and vehicle searches" were selected by China's MIIT as success stories of new digital services in 2024.
- **December 21, 2023:** "HUAWEI AppGallery's in-depth privacy detection capability and privacy label solution" and "Huawei HarmonyOS's Open Anonymous Device ID (OAID) management mechanism" were selected by the MIIT as success stories of improving mobile internet's app and service capabilities.

## Sustainable supply chain

Huawei incorporates sustainability into its procurement strategies and processes, and uses it as a criterion for evaluating and selecting suppliers. It requires its suppliers to comply with applicable laws, regulations, and sustainable development agreements. In procurement activities, it guides its suppliers towards continuous improvement and effective risk monitoring and control, maintaining the overall health of the supply ecosystem.

From September 2023 to August 2024, Huawei Device conducted a total of 215 sustainability reviews on its suppliers to ensure that its industry chain is responsible and achieves certain standards.

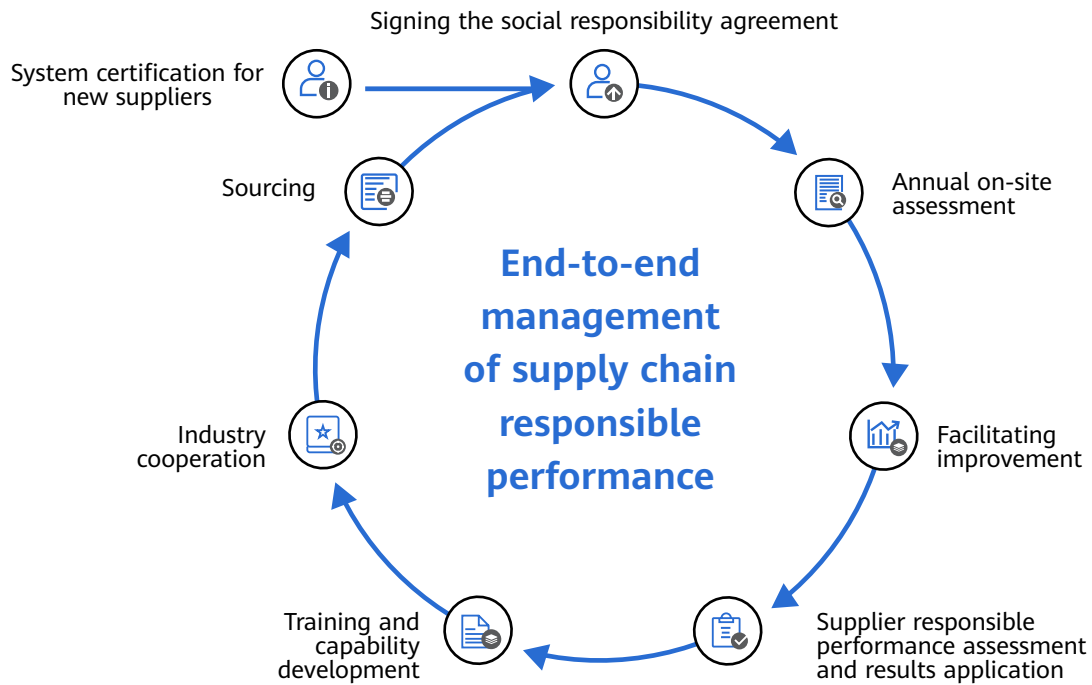
## Supplier management process

In accordance with international standards and rules (e.g. ISO 26000, ISO 14001, ISO 45001, SA8000, and ISO 14064), industry standards (e.g. RBA and JAC), and international principles (e.g. UNGP), among others, we developed the *Huawei Supplier Social Responsibility Code of Conduct*, outlining our key requirements for suppliers. This document aims to foster cross-party cooperation with our suppliers regarding enterprise social and environmental responsibilities.

Labor, and human rights		Occupational health and safety		Environmental protection		Business ethics		Management systems	
Freely chosen employment	✓	Fire safety	✓	Environment permission report	✓	Honesty and integrity	✓	Corporate commitments and management responsibilities	✓
No child labor	✓	Hazardous chemical management	✓	Environmental requirements for products	✓	Intellectual property rights	✓	Risk assessment and management	✓
Protection of minors	✓	Occupational health management	✓	Pollution prevention	✓	Fair transaction/ Advertising and competition	✓	Upstream suppliers management	✓
Working hours	✓	Security defense for devices	✓	Energy saving and consumption reduction	✓	Identity protection and non-retaliation policy	✓	Internal audit and management review	✓
Compensation and benefits	✓	Hazardous operation surveillance	✓	Carbon emission reduction	✓	Responsible mineral procurement	✓		
Humane treatment	✓	Occupational injury management	✓			Privacy protection	✓		
Non-discrimination	✓	Emergency planning	✓						
Free association	✓	Dormitories and canteens	✓						
		Absolute rules	✓						



Huawei has established a complete responsible supply chain management process and mechanism.



Huawei Supplier Social Responsibility Code of Conduct

<https://www.huawei.com/en/sustainability/sustainability-report/huawei-supplier-social-responsibility-code-of-conduct>



## Environmental protection management of suppliers

In adherence with applicable environmental protection laws and regulations, industry standards, and other rules, Huawei has formulated requirements on restricted substances in purchased materials, packaging materials, and batteries, which suppliers must meet. Huawei has incorporated its requirements for hazardous substance management into the procurement process and managed hazardous substances throughout the supplier lifecycle.

Huawei Device pushed suppliers to completely prohibit the use of nine hazardous substances (such as benzene, toluene, and xylene) in the cleaning, degreasing, and demoulding agents during the manufacturing of devices (including smartphone, PC, tablet, audio product, and wearable), and provided guidance for suppliers to cut and even stop the use of five substance types, such as hydrofluoric acid and nickel acetate. In addition, Huawei upgraded its standards for managing allergens to a level far higher than common industry standards.

Huawei Device sets QC 080000 certification as the threshold for cooperating with a supplier, and from 2023 to 2024, all new suppliers gained QC 080000 certification. Furthermore, it reviewed all of its new suppliers' environmental protection systems for products to ensure that environmental protection risks of materials were effectively controlled during supplier introduction.

## Responsible management of raw materials

Huawei is committed to the responsible procurement of products containing raw materials, including tin, tantalum, tungsten, gold, cobalt, and mica. It has established a risk-based system for the responsible management of minerals in accordance with the *OECD Due Diligence Guidance for Responsible Business Conduct* and the *Chinese Due Diligence Guidelines for Mineral Supply Chain*. The responsible management of minerals is an integral part of its procurement CSR management system, and is checked during its supplier qualification, supervision, and auditing processes.

As a downstream company in the mineral supply chain, Huawei does not directly purchase any minerals, and there are at least seven tiers between Huawei and mining companies. Huawei requires that its suppliers refrain from purchasing conflict minerals, extending this requirement to their upstream suppliers. This prevents and reduces the likelihood of minerals in its products contributing directly or indirectly to human rights violations, environmental harm, health and safety risks, corruption, and more.

Huawei also actively works with global industry peers through industry initiatives like the Responsible Minerals Initiative (RMI) and the Responsible Critical Mineral Initiative (RCMI). Together with partners both up and down the supply chain, it conducts supply chain surveys, creates a list of smelters, and pushes smelters to apply for or renew the Responsible Minerals Assurance Process (RMAP) certification.

In 2023, Huawei added mica as part of its responsible conflict mineral due diligence management in response to the RMI. This means it now identifies suppliers of six conflict minerals: tin, tantalum, tungsten, gold (3TG), cobalt, and mica. Using the *Conflict Minerals Reporting Template* (CMRT) and the *Extended Mineral Report Template* (EMRT), Huawei urges suppliers to identify and investigate all smelters within their supply chain, all identified smelters not to purchase minerals from conflict-affected and high-risk areas (CAHRAs), and, when necessary, smelters who have not obtained the RMAP certification to do so within a specified timeframe.

Huawei, together with industry organizations, local governments, and a diverse range of stakeholders, will continue to take reasonable and effective measures to improve supply chains and practice responsible supply chain management, thereby developing stable, orderly, diversified, responsible, and sustainable supply chains.

Huawei Statement on Responsible Mineral Supply Chain Due Diligence Management

<https://www.huawei.com/en/declarations/huawei-statement-on-responsible-mineral-supply-chain>





# Boosting community development

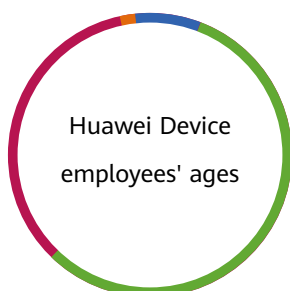
## Building a stage for employees to shine

Huawei needs global talent to create well-run, diverse teams. Huawei Device has created over 86,000 jobs, and more than 80% of the jobs outside China are filled by local employees. A multinational team has helped foster a global culture, broadening Huawei's international vision, and promoting local employment and economic development. Huawei is committed to treating employees equally regardless of their gender, race, ethnicity, or religious beliefs, and promises to ensure that all employees have equal opportunities for work, learning, and career growth.



Remarkable talent underpins sustainable development, and therefore creating a diverse team is key to helping us remain competitive and build products that consumers trust and enjoy. Huawei gathers global talent and provides multiple career paths for employees to unleash their potential and create engaging and innovative experiences to consumers.

In 2023, we invited managers and business experts to share their hands-on experience, and industry experts to share their knowledge with our employees. This initiative aims to help our employees get the bigger picture of the industry's latest landscape and hone in on personal development. In light of business challenges and changes, we gradually made more than 10,000 online targeted courses and over 1,500 systematic, in-person, premium courses available. These courses attracted a total of more than 200,000 individual enrollments, and last year's training hours exceeded 1.5 million hours.



25 or younger: 6%

26-35: 56%

36-45: 35%

46 or above: 3%



Doctor's degree: 4%

Master's degree: 58%

Bachelor's degree: 37%

Other: 1%

## Fostering a healthy and comfortable office environment

We want our staff to strike a healthy balance between work and life, and create an environment that promotes employee wellbeing.

### Societies

Some employees have taken the initiative to set up 13 cultural and sports interest groups. Wow Week, a program held in Shenzhen, Wuhan, Shanghai, and some other regions, was a great opportunity for employees to show off their ideas and communicate with like-minded people. This program featured cross-discipline speeches, idea fairs, carnivals, and online interaction, and employees were also invited to many other team activities, such as Family Day, jogging, and the Cultural Festival for the Programmers' Day event. All of these have helped enhance mutual understanding and trust among employees from different cultural backgrounds, creating a favorable organizational atmosphere.

### Care for employees' physical and mental wellbeing

Employees are reminded to be mindful of their wellbeing, and managers are encouraged to care about the wellbeing of their employees. We have pooled internal and external health assurance resources to provide employees with various physical and mental health knowledge and services. We also purchase competitive commercial insurance, including accidental injury insurance, major illness insurance, life insurance, and overseas business travel insurance, and provide insurance resources for employees. Our extensive emergency response mechanism is another line of defense for employees' health. In addition to publicizing emergency response knowledge, we have arranged first aid training and drills, as well as first aid volunteer certification, to ensure quick emergency response.

### Office environment

We respect the lifestyles, customs, beliefs, and habits of all our employees and strive to ensure all employees can work in a comfortable and safe environment. To this end, we have built gymnasiums, coffee shops, libraries, nursing rooms, and other facilities on our campuses and provided a range of lifestyle services for employees.



Huawei R&D center campus in Qingpu, Shanghai



Consumer BG Wow Week 2024



## Contributing to the residential communities where we operate

As a responsible corporation, Huawei abides by local laws and regulations. We maintain extensive communication with local consumers, employees, suppliers, and other stakeholders, actively engage with local communities, carry out various activities in residential communities, and fulfill our responsibilities and work with local community organizers to contribute to residential community development. We value local communities and strive to give back as much as we can.

### Digital literacy training for senior citizens, helping the elderly improve their digital skills

HFS takes the initiative to bond with residential communities. Community residents are regularly invited to HFS or to the local activities organized by HFS, for public good. In 2023–2024, through local charitable organizations and public welfare development centers, we provided digital literacy training for senior citizens.

By leveraging our device products and expertise in internet applications, we have developed a range of courses to teach senior citizens beginner digital skills, helping them get to grips with smart devices and embrace a digital world. As of December 2023, we had worked with partners, such as the Seniors University of China, to provide digital literacy training and support for senior citizens at senior universities, residential communities, and nursing homes across 210 cities and had helped more than 42,000 elderly people improve their smartphone skills and bridge the digital divide.



### Community activity to boost ear health

On March 3, 2024, World Hearing Day, Huawei launched a course titled For Better Hearing, where ear health knowledge and audio product functions, including noise reduction, rest reminder, and voice enhancement, were mentioned. The course guided users to good earphone cleaning habits and attention to their hearing health.



### Health and fitness activities targeted at residential communities, caring for everyone's health

HFS regularly invites product line experts to talk directly to consumers. By doing so, consumers are able to learn how to leverage the latest technologies to help them with their health and day-to-day life. In 2024, sports and health-themed community activities, including urban cycling and jogging, dance, and yoga, were regularly held together with the Light Up Your Rings campaign. Huawei products enhance the scientific approach to sports and enrich urban living.



## Creating more social value through powerful products

An enterprise's top responsibility is leveraging its products and services to address social problems and generate social value. Huawei is dedicated to creating products and services that address social issues. Through technological innovation, it constantly enhances its offerings and adjusts them to social needs, promoting the overall wellbeing of society.

China has experienced frequent extreme weather events in recent years. Accurate and timely weather warnings can be lifesaving by providing critical time for disaster relief efforts. In 2023, Huawei Weather pushed 70,000 red and orange warnings from the China Meteorological Administration to 300 million users, effectively curbing casualties and property losses caused by disasters.

Severe natural disasters often lead to the destruction of ground communications facilities. To combat this, Huawei has enhanced satellite communication capabilities, empowering trapped users to connect with the outside world after disasters or in remote areas.

Earthquakes often allow only a short window for escape, and that's why Huawei's earthquake warning function provides users with vital seconds to seek safety.

### Advancing satellite communication capabilities for safer journeys

Since the initial release of the BeiDou satellite SMS messaging feature on Mate 50 smartphones in 2022, Huawei has enhanced the comprehensive satellite communication capabilities over the past two years, spanning from SMS messaging to satellite calling and to image messaging. It has striven to provide seamless connectivity options, even without network coverage.

Tiantong Satellite Communications allows users to make emergency rescue calls and request service restoration even if no network coverage is available and phone service is suspended due to arrears, as long as the satellite connection feature has been

enabled.

Since the launch of the satellite feature, Huawei's MeeTime Team has continuously pursued its natural disaster emergency initiative, reaching around 4 million users. During the rainstorm disaster in Beijing and Hebei in August 2023, the snowstorm disaster in Heilongjiang, Jilin, and Liaoning in November, and the Jishishan earthquake in Gansu in December, among others, the MeeTime app on Huawei smartphones promptly pushed notifications, such as BeiDou Satellite Messaging enabling and user guide, to affected users.

Sep 2022: Mate 50 series BeiDou satellite SMS messaging	Mar 2023: P60 series Two-way BeiDou satellite messaging	Aug 2023: Mate 60 series Tiantong Satellite Communication	Apr 2024: Pura 70 series Image messaging
Preset SMS messages, location information, and track maps can be sent.	Sending and receiving messages is supported.	Users are allowed to make satellite calls and send messages they can edit themselves.	Images can be sent.

Huawei's journey in developing satellite communication capabilities

According to the Xinjiang Firefighting Weibo account, in October 2023, three geological explorers were trapped when a vehicle malfunctioned while conducting operations in the no man's land of the Kunlun Mountains. With no available phone signals, they reached out to their family and rescue team via Beidou Satellite Messaging, and were finally rescued.

The BeiDou Satellite Messaging function on Huawei smartphones supports sending precise locations and offers reliable communication capabilities, playing a crucial role during this search and rescue.

Moving forward, Huawei will keep advancing satellite communication capabilities to deliver even greater value through cutting-edge technology.



## Earthquake warning function: Swift disaster alerts

When an earthquake is detected nearby, Huawei smartphones will send warnings several seconds in advance. Depending on the earthquake's magnitude, the smartphones will alert users via the notification panel, or full-screen pop-ups together with alarm sounds, giving users more time to take cover.

If the estimated intensity is lower than 2.0 (almost unnoticeable or weak), a smartphone will display an alert on the notification panel, providing

information such as the time, location, magnitude, and perceptibility of the shaking.

If the estimated intensity is higher than 2.0 (may cause damage), the smartphone will, together with an alarm sound, display a full-screen pop-up alert, providing important information such as the location, magnitude, distance from the current spot to the epicenter, and a countdown before the seismic wave arrives.



### Earthquake reminder

When an earthquake occurs, the system sends different warnings to devices in areas at different distances from the earthquake epicenter based on the location of the earthquake epicenter, estimated intensity and magnitude, etc.

### Emergency shelter

Touch the emergency shelter icon to open a map that displays information, including the locations of nearby emergency shelters.

## Earthquake warning

### Emergency contacts

Touch the emergency contact icon to call a contact that has been added.

### Personal emergency information

In case of injury, emergency responders can quickly view emergency information such as personal name, address, blood group, treatment history, and emergency contacts.

## Timely warning of the 6.2 magnitude earthquake in Gansu gave residents seconds to find safety

The earthquake warning function on Huawei smartphones is an innovative feature developed by Huawei in collaboration with Chengdu Institute of Care-Life. By gathering data from seismic monitoring stations, this function can predict the time, location, and magnitude of an earthquake, and then send warnings to smartphones.

From June 2023 to June 2024, Huawei products' earthquake warning function successfully alerted users to 63 earthquakes of magnitude 3 or above, totaling 97 million person-times.

On December 18, 2023, an earthquake with a magnitude of 6.2 struck Jishishan County, Linxia

Prefecture, Gansu Province. Huawei products' earthquake warning function sent alerts to users in Gansu and surrounding provinces, indicating the imminent arrival of the seismic wave. After receiving the warnings, many residents quickly took emergency measures, such as moving to safe locations and shutting down fire sources, which helped reduce casualties and property losses. This, again, demonstrates the critical role of science and technology in disaster response.

Huawei smartphones' earthquake warning function gives residents critical escape time and provides more information and time for rescue personnel to make decisions.

# Appendix

## | About this report

### Time scope

This report covers the period from June 1, 2023 to June 30, 2024. Some content in this report may cover the time before or after this period.

### Concerning titles

For easier readability, "Huawei consumer business", "Huawei Device", "Consumer Business Group", "Consumer BG", or "we/our/us" in this report refers to Huawei Device Co., Ltd., unless otherwise specified.

### Obtaining and responding to this report

This report was published in October 2024 in both Chinese and English as an independent enterprise sustainable development report. If you would like to view or download this report online, please visit:

<https://consumer.huawei.com/en/sustainability/sustainability-report/?toCampaign>

### Scope of this report

The subject of this report is Huawei Device Co., Ltd., which includes all of its global branches, subsidiaries, and directly affiliated institutions.

### Data sources and reliability statement

The data and stories in this report mainly come from Huawei's official documents, statistical reports, and publicly available information. Huawei promises that this report does not contain any false or misleading description and Huawei is responsible for the authenticity, accuracy, and integrity of the content thereof.



## **Huawei Device Co., Ltd.**

Huawei Industrial Base

Shenzhen 518129, P. R. China

Tel: +86-755-28780808

<https://consumer.huawei.com/en/>

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