

# 2017 Sustainability Report

China Mobile Limited



# Contents

**02** Chairman's Statement

**04** About China Mobile

**05** Sustainability Strategy and Management

**07** Communication Report

08 20 Years of Connectivity

10 Connectivity to Create a Shared Future

11 Optimizing Connectivity Capabilities

14 Empowering the Digital Economy

20 Sharing a Better Life

25 China Mobile and SDGs

29 Transformation to Enable Better Connectivity

30 Strategy-led Transformation

32 Environment-friendly Development

34 Innovation-inspired Dynamics

**36** Performance Report

37 Stakeholder Engagement and Materiality Analysis

39 Economic Performance

46 Environmental Performance

50 Social Performance

**56** Independent Assurance Report

**58** About this Report

**59** Report Disclosure Indexes

**64** Feedback



# Chairman's Statement

## Embracing the New Era while Keeping in Mind Why We Started

2017 is a significant year in the course of China's development, and it is also the 20th anniversary of our listing. Once only a mobile telecommunications service provider, we have grown in both scale and business scope over the past 20 years to become a world-leading provider of comprehensive information and communication services on all fronts adhering to the "connectivity-driven development" model. Always keeping in mind why we started, we have successfully transformed telecommunications service from a scarce resource in China enjoyed by only a few into a world-class public infrastructure benefiting one fifth of the world's population, thereby serving as an important growth engine that drives economic development and improves people's livelihood with the digital innovation it initiates. This is not only a miracle in the telecommunications history of mankind, but also a grand embodiment of our corporate mission, in which every one of us who works at China Mobile should take great pride. In 2017, we continued to leverage our expertise in connectivity in fulfilling our corporate responsibilities with excellent progress in various aspects.



## Shang Bing

Chairman of  
China Mobile Limited

**Leveraging expertise in connectivity to deliver ICT benefits.** We are committed to building world-class information infrastructure and promoting the integrated development model of the “four growth engines”, so as to provide network connection services of the widest coverage and best quality for individuals, households and corporate customers alike. By the end of 2017, we had a total of 1.87 million 4G base stations, covering 99% of the total population in China. We served 650 million 4G subscribers and 113 million customers chose our wireline broadband services. High-speed mobile Internet and broadband connection have become the primary means of information access. We have constructed the largest dedicated Internet of Things network in the world and launched NB-IoT (Narrow band-Internet of Things) in 346 cities. With a net addition of 126 million IoT smart connections in 2017, our IoT network consisted of 229 million connections, building a solid foundation for achieving the Internet of Everything. We continued to reduce the cost of information and communication services by canceling handset domestic long-distance and roaming charges and significantly reducing the dedicated Internet access tariffs for small and medium-sized businesses, thereby further enhancing the accessibility of digital services for society and the sense of gain from IoT benefits.

**Strengthening innovation-driven integrated development.** We continued to strengthen our research on key technologies and leadership in new standards and led industry development by playing a leading role in the development of international standards for 5G network architecture. We kept strengthening our business innovation and actively explored new connectivity applications for popular scenarios around people's daily life, entertainment and consumption, bringing great convenience and rich choices to people's lives. We created a leading platform of copyrighted digital content in China, serving 500 million subscribers with nine major digital content products installed on over 1 billion devices. Focusing on the key areas of industry, agriculture, education, public administration, finance, transportation and medical care, we promoted the deep integration between information technology and the real economy and accelerated the transformation and upgrade of traditional industries in order to foster new drivers of growth for society. We continuously strengthened management innovation and strove to adapt to the new era by building a flat, agile and efficient digital organization.

**Deepening opening-up and cooperation to build industrial ecology.** We fully implemented the 139 Cooperation Plan and opened up over a hundred core capabilities to society. Our communication capability open platform has served over 130,000 enterprises, our unified authentication platform has processed an average of more than 500 million accreditations per day, and

our OneNET IoT platform has converged 6,500 enterprises and provided capacity building services to 56,000 developers. Our “Mass Entrepreneurship and Innovation” initiatives provided our 154,000 employees with all-around resource support, and our crowdsourcing platform created a new mode of employment and promoted the collaborative development of businesses of different sizes. We also deepened the strategic cooperation with local governments, large businesses and international operators to jointly create a new ecology for digital services.

**Fulfilling social responsibilities for a better future.** We have made great efforts in fighting against information fraud to ensure safe and pleasant consumption experiences. In the last decade, we performed over 41,000 emergency communication support tasks for various occasions and ensured reliable connection for those in need. Through the Rural Broadband Demonstration Project and the Telecommunication Universal Service Project, we brought broadband services to over 35,000 villages cumulatively, further narrowing the urban-rural digital divide. We supported targeted poverty alleviation with preferential tariff plans, and our independently-developed targeted poverty alleviation system covered 6.64 million people in poverty. We also continued our full support for the targeted aid programs and developmental programs in targeted poverty alleviation counties. We continued to carry out the China Mobile “Blue Dream” Educational Aid Plan and the “Heart Caring” Campaign, cumulatively providing training for about 104,000 rural primary and secondary school principals in central and western China and sponsoring the surgery of 4,498 impoverished children with congenital heart disease. We conducted the “Green Action Plan” for the eleventh consecutive year, promoting energy saving grading standards and green packaging for communication equipment to play a part in tackling climate change and building a beautiful China.

Never forget why you started, and your mission can be accomplished. Standing on the starting point of the new era, we will adhere to the new development concept of “innovation, harmony, green, open and sharing”, and continue to implement our “Big Connectivity” strategy. We will actively promote the construction of a new generation of information infrastructure that is fast, mobile, safe, omnipresent and intelligent, vigorously advance the innovation in 5G, Internet of Things, big data, cloud computing, artificial intelligence and other cutting-edge technologies, and constantly develop new business formats and models, so as to become a world-class enterprise with global competitiveness and a contributor to building a more inclusive and more sustainable intelligent world. We will stand firmly by the side of our stakeholders to forge ahead in close cooperation to welcome the coming of a new era that is more prosperous and more beautiful!



March, 2018

# About China Mobile

## Company Profile

As the largest telecommunications service provider in Mainland China, China Mobile Limited (“China Mobile”, “the Company” or “we”) serves the world’s largest number of mobile customers and operates the world’s largest mobile network, maintaining a leading position in the telecommunications market in Mainland China.

- **Incorporation**

3 September 1997 in Hong Kong, China.

- **Operation Regions**

All 31 provinces, autonomous regions and directly administrated municipalities in Mainland China, and the Hong Kong Special Administrative Region.

- **Credit Rating**

Currently, the Company’s corporate credit ratings continue to be equivalent to China’s sovereign credit ratings from Standard & Poor’s and Moody’s.

- **Shareholding Structure**

The Company’s ultimate controlling shareholder is China Mobile Communications Group Co., Ltd. (“the parent company”), which indirectly held approximately 72.72% of the total number of issued shares of the Company as of 31 December 2017. The remaining approximately 27.28% was held by public investors.

## Honors and Recognitions

- Listed in the Dow Jones Sustainability Indices (DJSI) for the tenth consecutive year, and listed in the Hang Seng Corporate Sustainability Index Series for the eighth consecutive year;
- Ranked the 21st in the “2017 Forbes Global 2000 List”;
- Listed in the “BrandZ™ Top 100 Most Valuable Global Brands 2017” published by Kantar Millward Brown and Financial Times for the 12th consecutive year, ranking 17th globally;
- Continued to be the first and only company from Mainland China listed in CDP’s Climate A List for the second consecutive year, and was acclaimed as Sustainability Leadership Enterprise Model by CDP China for our work to tackle climate change for the fourth consecutive year;
- Received the “The Asset Platinum Award” from The Asset;
- Received the “Corporate Governance Excellence Awards” and “Sustainability Excellence Awards” from the Chamber of Hong Kong Listed Companies.

## Organizational Structure

The Company owns 100% interest in the following major subsidiaries:

China Mobile Communication Company Limited, China Mobile Guangdong Company Limited, China Mobile Group Zhejiang Company Limited, China Mobile Group Jiangsu Company Limited, China Mobile Group Fujian Company Limited, China Mobile Group Henan Company Limited, China Mobile Group Hainan Company Limited, China Mobile Group Beijing Company Limited, China Mobile Group Shanghai Company Limited, China Mobile Group Tianjin Company Limited, China Mobile Group Hebei Company Limited, China Mobile Group Liaoning Company Limited, China Mobile Group Shandong Company Limited, China Mobile Group Guangxi Company Limited, China Mobile Group Anhui Company Limited, China Mobile Group Jiangxi Company Limited, China Mobile Group Chongqing Company Limited, China Mobile Group Sichuan Company Limited, China Mobile Group Hubei Company Limited, China Mobile Group Hunan Company Limited, China Mobile Group Shaanxi Company Limited, China Mobile Group Shanxi Company Limited, China Mobile Group Neimenggu Company Limited, China Mobile Group Jilin Company Limited, China Mobile Group Heilongjiang Company Limited, China Mobile Group Guizhou Company Limited, China Mobile Group Yunnan Company Limited, China Mobile Group Xizang Company Limited, China Mobile Group Gansu Company Limited, China Mobile Group Qinghai Company Limited, China Mobile Group Ningxia Company Limited, China Mobile Group Xinjiang Company Limited, China Mobile Group Design Institute Company Limited (“Design Institute”), China Mobile Hong Kong Company Limited (“Hong Kong Company”), China Mobile International Limited (“International Company”), China Mobile IoT Company Limited (“CM IoT”), China Mobile Information Technology Limited, China Mobile Online Services Company Limited (“Online Services Company”), China Mobile (Suzhou) Software Technology Company Limited, China Mobile (Hangzhou) Information Technology Company Limited, MIGU Company Limited (“MIGU Company”), China Mobile Internet Company Limited (“CM Internet”), China Mobile Tietong Company Limited (“CM Tietong”), and China Mobile Investment Holdings Company Limited.

In addition, the Company owns a 99.97% equity interest in China Mobile Group Device Company Limited, a 92% equity interest in China Mobile Group Finance Company, and a 66.41% equity interest in Aspire Holdings Limited.

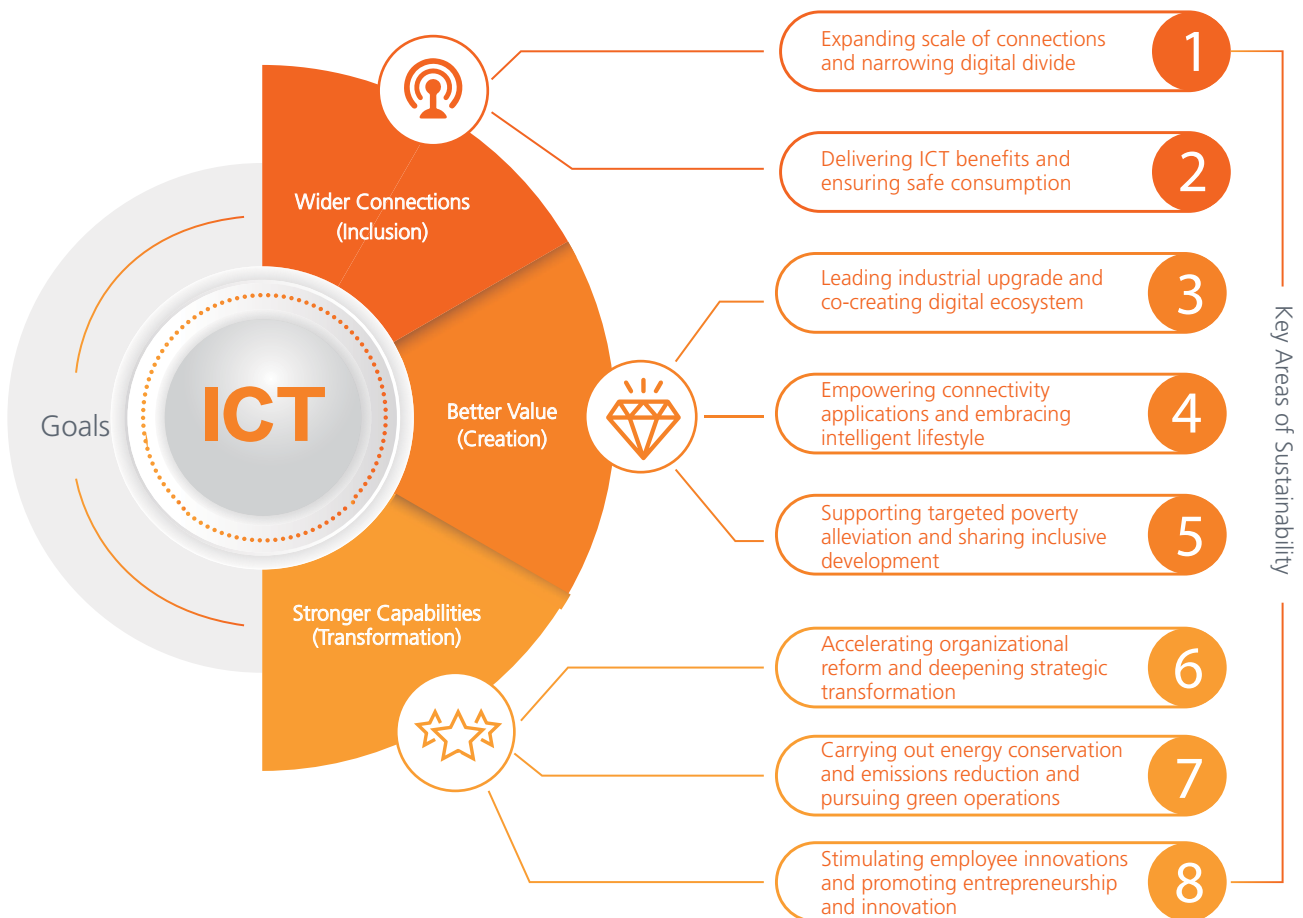
# Sustainability Strategy and Management

## Sustainability Strategy

Following the corporate core value of “Responsibility Makes Perfection”, China Mobile thoroughly and closely integrates its sustainability strategy and the national strategy. We firmly pursue the new development concept of “innovation, harmony, green, open and sharing”, with “to become a world-leading operator in digital innovation” as a middle and long-term vision to create shared value through “connectivity” and actively address and fulfill expectations of all stakeholders.

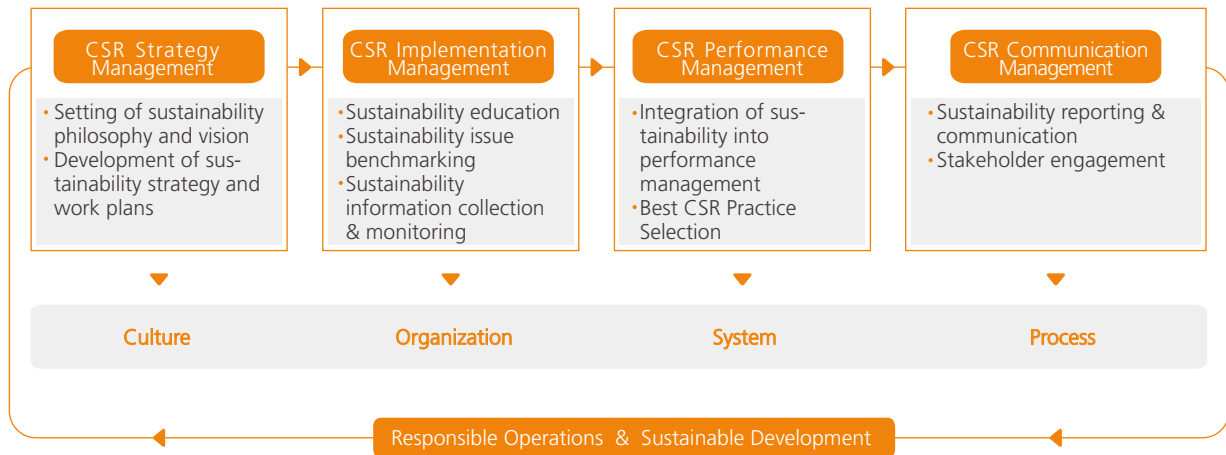
Standing at the threshold of the new era, we will continue to implement the “Big Connectivity” strategy, actively fulfill our corporate social responsibility, focus on addressing the unbalanced and inadequate development of telecommunication services, and help build China into a Cyberpower, a country of innovators and a digital society, thereby contributing to the satisfaction of people’s growing needs for a better life with wider connections, better value and stronger capabilities, and promoting the sustainable development of mankind.

### The ICT Model for China Mobile Sustainability



## Sustainability Management

China Mobile has implemented the strategic corporate social responsibility (CSR) management which is embedded in our corporate strategy and operations since 2006, and has gradually established the strategic CSR management system including four modules of strategy, implementation, performance and communication.



In 2017, we continued to carry out the Dow Jones Sustainability Indices (DJSI) benchmarking management. Through continual efforts to improve our compliance management system, we have made our work in CSR increasingly standardized and effective. Meanwhile, we continued to organize featured activities including the Best CSR Practice Selection, and actively engaged with our industry peers at experience-sharing events to promote better CSR management across the whole industry.



### Best CSR Practice Selection

Since 2008, China Mobile has organized the Best CSR Practice Selection for 10 consecutive years. Experts from administrative departments of governments, NGOs, academic organizations and the mainstream media as well as from inside the Company get together to work on the annual review. Over 10 years, more than 680 cases of CSR practice have been received, and more than 170 cases have been commended, effectively boosting participation of all subsidiaries in CSR related activities.

In 2017, the 10th Best CSR Practice Selection received 64 cases from 44 subsidiaries totally. After case collection, qualification examination, first-round voting, online voting and expert evaluation, finally 15 best practice cases were selected and received awards such as "2017 Top 10 CSR Practices", "Best CSR Originality", "Best Employee Engagement", "Best Organizers of Public Welfare Activities", and "Most Popular Practice among Netizens". Three employees were recognized as "Philanthropy Stars of China Mobile". In 2017, we set up a special column on the CSR webpage in our official website for online voting, as well as voting channels on WeChat and Weibo. The online voting lasted for 30 days, and received over 960,000 effective votes, attracting the public's attention to our CSR practices.



Please scan the QR code for more best CSR practices.

# Communication Report

The connection between people and the world enabled by information and communication technology is becoming the common “normality” in everyone’s life. In the last twenty years, China Mobile has been making tremendous efforts to bring about this “normality” which indicated the rapid growth of China’s information and communication industry and the great enrichment in the public’s information consumption choices, offering an excellent showcase of “mobile changes lives”. In 2017, we implemented the “Big Connectivity” strategy, continued to optimize our connection infrastructure, innovated on the empowerment of the digital economy, and worked with other industry players to satisfy the people’s needs for a better life. We accelerated the strategic transformation, fully implemented green development and encouraged innovation in order to develop capabilities to provide better digital services in the long run.





# 20 Years of Connectivity



- Attained a total number of connections of 1,229 million, amongst which 887 million were mobile connections, 113 million were wireline broadband connections and 229 million were Internet of Things (IoT) smart connections.
- Built 1.87 million 4G base stations, covering 99% of the population in China.
- Promoted China's independent proprietary TD-LTE technology to become one of the mainstream international 4G standards, with 105 TD-LTE networks already in operation in 55 countries and regions.



- Covered 172 countries and regions with our 4G international roaming services, and 229 countries and regions with our data roaming services.
- Covered 122,000 remote villages with mobile phone network with the "Village Connected Project", and provided wireline broadband connections to 386,000 administrative villages.
- Deployed over 4.16 million person-times of our emergency communication support personnel to complete 41,523 emergency communication support tasks over the last 10 years.

Number of connections

10 million

100 million

200 million

300 million



Mobile voice calls



SMS



MMS



CRBT



Mobile newspaper



Mobile reading



Mobile music

1997

2002

2004

2006



- Introduced a series of discounted data tariff packages, significantly reduced international long-distance and roaming charges, canceled handset domestic long-distance and roaming charges, and significantly reduced the dedicated Internet access tariffs for small and medium-sized businesses, benefiting 2.8 billion person-times in total since we implemented the measures of speed upgrade and tariff reduction.

400 million

700 million

900 million

1 billion

1.2 billion



Mobile games



Mobile social networking



Shared bicycle



Online education



Live video broadcasting



Intelligent manufacturing



Mobile health



Intelligent security



Olympic mobile photo sharing



Mobile car-hailing



Intelligent agriculture



Mobile health



Intelligent security



Mobile payment



Intelligent agriculture



Mobile health



Intelligent security



Intelligent home



Intelligent government affairs

2008

2012

2015

2016

2017

# Connectivity to Create a Shared Future

## Our Actions



Continuously promoted 4G network construction, strove to promote the universal telecommunication service, and deepened the implementation of “speed upgrade and tariff reduction” policy, aiming at benefiting society with information services.



Thoroughly fought against telecom fraud and ensured information security protection with new technology.



Maintained the leading edge in 5G technology, initiated the 139 Cooperation Plan to build ecological alliances, created open capabilities and platforms, promoted industry development and served the growth needs of SMEs.



Focused on targeted poverty alleviation and promoted development in poverty-stricken areas with information and e-commerce; and continuously supported the “Blue Dream” and “Heart Caring” charity programs to help improve educational and medical conditions in less developed areas.

## Our Achievements in 2017

- Built 1.87 million 4G base stations with 650 million 4G customers, covering 99% of China's population.
- Cumulatively provided broadband services for over 35,000 villages under the Rural Broadband Demonstration Project and the Telecommunication Universal Service Project; and benefited 2.8 billion person-times in total since we implemented the measures of speed upgrade and tariff reduction, with handset data tariff decreasing by 43% in 2017 compared with the previous year.
- Sent an average of 600 million fraud warning messages and handled over 3.14 million international telephone fraud cases per month.
- Our communication capacity open platform has served more than 130,000 enterprises, our unified authentication platform processed an average of more than 500 million accreditations per day, and our OneNET IoT platform has provided capacity building services to 56,000 developers.
- Our targeted poverty alleviation platform has been applied in 45 cities and counties in 6 provinces and trial used in 11 provinces, covering 6.44 million impoverished people and serving 330,000 poverty alleviation cadres.
- Cumulatively, the China Mobile “Blue Dream” Educational Aid Plan sponsored professional training for about 104,000 primary and secondary school principals in rural villages across Central and Western China, and the China Mobile “Heart Caring” Campaign has funded surgeries for 4,498 impoverished children with congenital heart disease.

## Our Commitments for 2018

- Strive to achieve a net addition of 50 million 4G customers, net addition of 21 million household broadband customers, net addition of 120 million IoT smart connections, and total number of connections exceeding 1.4 billion.
- Constantly carry out broadband construction in rural areas, actively promote our targeted poverty alleviation system, and develop featured information projects for poverty alleviation, to provide overall support for the achievement of the 2020 poverty alleviation goals.
- Plan to conduct training for 11,000 primary and secondary school principals in villages in central and western China under our “Blue Dream” program, and provide free surgical treatment for 860 children with congenital heart disease under our “Heart Caring” campaign.
- Continue to carry out 5G pilot testing, create the 5G industry ecosystem, and strive to play a leading role in 5G development.

# Optimizing Connectivity Capabilities

China Mobile continues to improve its network infrastructure capabilities and strives to build world-class information infrastructure to enable ever bigger connectivity that connects everyone and everything. We continue to optimize the quality of our services and strengthen information security with full-scale "speed upgrade and tariff reduction" and stronger information security management. At the same time, we take the initiative to contribute to the development of China's information and communication industry by actively leading the development of 5G standards and key technologies and speeding up the efforts to upgrade information infrastructure.

## Expanding Connectivity Scale

### Mobile connections

As of 31 December 2017, we had built a total of 1.87 million 4G base stations, covering 99% of the population in China, and achieved continuous coverage of all cities, counties and townships.

The total number of mobile customers had reached 887 million, of which 650 million were 4G customers, with a net addition of 114 million compared with the previous year.

### Broadband connections

As of 31 December 2017, the total number of wireline broadband customers had reached 113 million with a net addition of 35.06 million.

Cumulatively provided broadband services for over 35,000 villages under the Rural Broadband Demonstration Project and the Telecommunication Universal Service Project.

### IoT connections

In 2017, we launched NB-IoT in 346 cities, achieving end-to-end scale commercial use.

As of 31 December 2017, with a net addition of 126 million IoT smart connections in 2017, our IoT network consisted of 229 million connections.

### International connections

As of 31 December 2017, we provided international 4G roaming services in 172 countries and regions.

In 2017, our "Hand-in-Hand Program" formed partnership with 24 global leaders in the industry ecosystem of telecommunications, mobile terminal and Internet, covering 2.8 billion users in total, accounting for 58% of the total number of mobile users worldwide.

## Implementing Speed Upgrade and Tariff Reduction

### Speed Upgrade



Constantly improved download speed of mobile networks and achieved 42Mbps as of 31 December 2017, approximately 1.6 times of that in 2015.

Launched the "Rate Multiplication Program" that upgraded the minimum bandwidth of dedicated Internet broadband connection packages from 2Mbps to 10Mbps.

Constantly expanded Internet backbone bandwidth and achieved 217Tbps as of 31 December 2017, approximately 6.5 times of that in 2015.

### Tariff Reduction



Canceled domestic long-distance charges and roaming charges for mobile phone users (excluding Hong Kong, Macao and Taiwan).

Introduced preferential packages of dedicated Internet access for small and micro businesses to address their specific needs, with a discount of over 50% compared with dedicated Internet access service packages of the same bandwidth.

Introduced a series of data traffic promotions such as data traffic upgrade packages and "Let Me Enjoy" discount data traffic packages.

Introduced the "Let Me Watch" streaming video traffic discount package in collaboration with major video-sharing websites, allowing users to buy 3GB/30GB video traffic package with RMB9/24 only, with more than 40 million person-times benefiting.



### Serving the "Belt and Road" Initiative

In 2017, we continued to reduce international roaming charges and our "30/60/90" daily tariff plan became available in 193 countries and regions. We also continued to reduce the roaming charges in countries and regions covered by the "Belt and Road" Initiative, benefiting over 15 million traveling customers cumulatively.

#### ◆ One Yuan Mobile Voice Service

On 1 March 2017, we reduced the mobile voice charges for 64 countries and regions covered by the "Belt and Road" Initiative to the flat rate of RMB1 per minute, with an average tariff cut of 67%.

#### ◆ Daily Data Traffic Package

We conducted four rounds of tariff cuts on data roaming charges for countries and regions covered by the "Belt and Road" Initiative. Traveling customers could enjoy daily data traffic packages in all "Belt and Road" Initiative countries and regions.

# Ensuring Information Security

In 2017, China Mobile continuously strengthened its security platform construction and security technological support, constantly improved its information security capabilities, strengthened the centralized control of spam messages, and coordinated resources to prevent and crack down on communication and information fraud.

**Information security** We revised the China Mobile Regulations on Customer Information Protection, which strengthened the requirements of customer authorization, "Vault Mode" technological coverage, and the management of third-party personnel.

**Information fraud prevention** We launched a specialized system to further enhance user authentication and ensure compliance with the real name registration requirements. For key businesses such as 400 number services, we required existing users to sign a new user contract, which contained specific prohibition on identity theft, use of forged ID, use of services against laws and regulations as well as abnormal patterns of use. We explored big data-based solutions to identify and prevent fraud by suspending fund transfers in time. In collaboration with law enforcement authorities, we helped suspend RMB520 million from being transferred to fraud perpetrators. In 2017, we blocked over 3.14 million fraud calls from overseas and over 37.08 million calls with false caller IDs and invalidated 21,000 numbers that violated regulations by making group voice calls each month on average.

**Fraud alerts** We actively carried out the integrated scenario-based fraud big data analytics. In 2017, we published 71 typical fraud cases and sent out 3,640 million SMS fraud alerts cumulatively, and identified and successfully intervened over 3.7 million fraud incidents and provided relevant support for their subsequent disposal.



## Sky Shield Offers Intelligent Information Security Guarantee

China Mobile Group Zhejiang Company Limited established the Sky Shield platform by consolidating a dozen Internet and information security capabilities, including big data anti-fraud, spam interception, monitoring websites for improper contents, fake base station detection, malware detection, website security, etc., in order to

realize intelligent network operation of information security. In 2017, the Sky Shield platform helped us achieve notable progress in intercepting telephone harassment, overseas telecom fraud and false caller ID, the active identification of fraud victims and the detection of fake base stations.

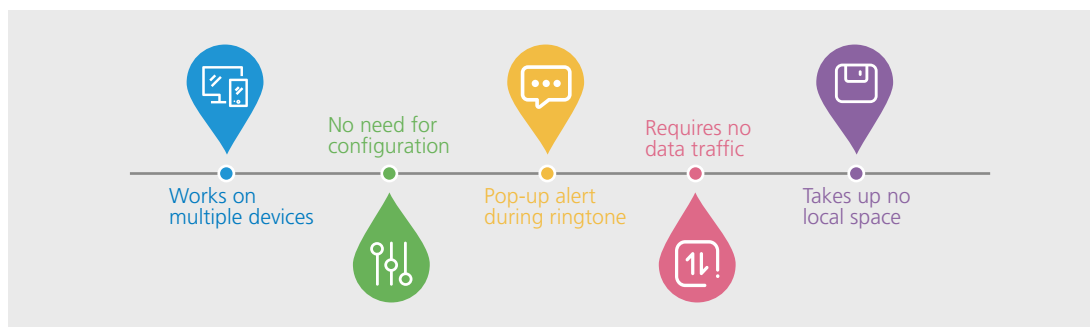


## Customized Phone-call Signature Detects Fraud Numbers

Although fraud detection technology has made great progress, some fraud numbers are still able to slip through detection. Under this circumstance, real-time fraud alert becomes particularly important in fighting telephone fraud. China Mobile launched the MIGU Customized Phone-Call Signature service, which could accurately identify fraud numbers by using big data analysis and caller information from various sources and send a fraud alert during the ringtone. Meanwhile, we worked

closely with law enforcement authorities to establish the customized phone call signature fraud alert platform and became the first carrier that offered real-time anti-fraud alert in collaboration with the 110 police command center.

In 2017, China Mobile's customized phone call signature service covered 224 million users in 31 provinces, sending out 600 million alerts each month.



## Leading the Development of 5G Technology

China has become one of the leaders in the development of 5G in terms of technology, standard setting, industry development and application. China Mobile's strategic focus on 5G has made the Company a spearhead of China's 5G development and resulted in several remarkable achievements in 2017.

- Conceptualizing needs** We conceptualized the "Flower of 5G" and promoted China's 5G vision and needs to become a global consensus.
- Technological R&D** We made breakthroughs in developing core technologies in collaboration with industry stakeholders and became one of the global leaders in setting 5G standards. In December 2017, we completed the formulation of the 5G System Architecture and Process Standards for Independent Network.
- Industrial tests** We supported two technological tests based on the standards, which was the first in China and the largest in the world and has completed the validation of two stages.
- Integration and innovation** We established the 5G Joint Innovation Center, set up 12 5G Innovation Labs at home and abroad, formed the 5G Multimedia Coalition, and promoted the innovation of 5G products and applications in cooperation with our partners.

**What is 5G?**

If we compare 4G to building a road, then 5G should be compared to building a city. 5G connects not only everyone, but also everything, and between everyone and everything, creating an ecosystem of cross-industry convergence.

**Features:**

- Faster speed**  
 $5G = 4G \times 10 \sim 100$
- Denser connections**  
 $5G = 4G \times 10$
- Lower air interface delay\***  
 $5G = 4G \times 1/5$

**Applications:**

- Cloud robot
- Augmented/Virtual Reality (AR/VR)
- Smart Cities
- Industrial control
- Internet of Vehicles
- Telemedicine

\*Air interface delay: Air interface is the communication link between two stations in mobile or wireless communication. Lower air interface delay can realize quicker system responses.

### Research on Key 5G Technologies

- In June 2017**, we worked together with equipment manufacturers and set up the first pilot 5G base station in Guangdong, enabling the downloading of an HD movie in seconds.
- In July 2017**, we launched the first 5G trial network in Beijing.
- In August 2017**, we completed the industry's first OTN end-to-end low latency transmission test over 5G bearer network.
- In November 2017**, we completed the world's first 3GPP R15-based end-to-end 5G new air interface (5G NR) system interoperability (IoT), which enabled real-time live broadcast of 16-channel 4K HD videos.

### Innovating 5G applications

- We launched the Innovative Application Research of 5G Unmanned Aerial Vehicles jointly with our partners, exploring the use of UAVs in a wide range of scenarios including patrol, plant protection, surveillance, rescue, logistics and entertainment.
- We developed the intelligent sales-robot, the "wisdom network" and the Nine Sky AI cloud platform based on artificial intelligence technology.
- We launched the world's first cloud-based VR rendering solution based on 5G edge network architecture, allowing better picture quality and helping lower VR equipment cost at the same time.

# Empowering the Digital Economy

The role of "connection" is not limited to promoting communication between people. At present, the vitality and influence of the digital economy are constantly being stimulated by ubiquitous high-speed connectivity. As a service provider with more than a billion connections, China Mobile has established an open platform to develop capabilities and collaborate with its partners to promote industrial innovation and accelerate the digital transformation, upgrade and innovation of traditional industries. We innovated and developed many intelligent digital applications in areas such as medical care, education and transportation based on the notion of "Internet of Everything", enhancing the richness and convenience of digital life in an all-round way.

## Promoting Industrial Innovation

### The 139 Cooperation Plan

On 24 November 2017, we officially launched the 139 Cooperation Plan in order to continuously open up our capabilities and enhance our external collaboration, and jointly create a beautiful blueprint with our partners in the era of digital economy.



To rely on the three industrial alliances and consolidate industrial resources to jointly promote industrial innovations based on the notions of Internet of Everything and Intelligent Connection of Everything.

1. China Mobile 5G Innovation Center
2. China Mobile IoT Alliance
3. China Mobile Digital Home Alliance



To build an advanced and extensive mobile Internet of Things and achieve continuous NB-IoT coverage in 346 cities, providing convenient and efficient network service experience for customers.



We offer these 9 capabilities and applications on our open.10086.cn platform, providing developers with one-stop, convenient online services in support of mass entrepreneurship and innovation.

- |  |                                  |
|--|----------------------------------|
| 1. Communication capability            | 6. And-Wallet payment            |
| 2. Unified authentication              | 7. Industrial Video+             |
| 3. OneNET shared device management     | 8. One-stop e-commerce interface |
| 4. AndLink home intelligent connection | 9. Intelligent voice cloud       |
| 5. And-Credit score                    |                                  |

## China Mobile 5G Innovation Center

Founded in February 2016, China Mobile 5G Innovation Center offers four capabilities to partners and entrepreneurship teams, including basic experimental environment, application incubation, maturity testing and certification, and application pilot demonstration. The Center already has 112 partners.

## China Mobile IoT Alliance

On 29 June 2017, we jointly launched the China Mobile IoT Alliance in Shanghai with our partners. As of 31 December 2017, the Alliance had 203 official members and had organized two alliance salons and the First IoT Forum. It also released the NB-IoT Security White Paper on 18 December 2017.

## China Mobile Digital Home Alliance

In 2016, we launched the China Mobile Digital Home Alliance. As of 31 December 2017, the Alliance had 68 members from chips, intelligent hardware, digital services and other fields.

## Supporting Mass Entrepreneurship and Innovation

In 2017, we launched the And-Entrepreneurship Program and developed the R&D Cloud Platform with the unified authentication platform, the communication capability open platform, the OneNET platform and the intelligent home gateway, creating a mutually beneficial and open entrepreneurship and innovation ecosystem by integrating the Internet plus model into mass entrepreneurship and innovation.

- We established the mass entrepreneurship and innovation incubation space And-Creation Space that focuses on digital home, IoT ecology, Internet technology, cultural creativity and "Internet plus" in the industry, providing a variety of differentiated and market-oriented services to startups such as incubation services, entrepreneurship guidance and resource support.
- We teamed up with local governments and industry peers and established Innovation Bases in cities such as Kunming, Chengdu, Zhuhai, Suzhou and Shenzhen, helping to create a comprehensive "Internet plus" ecosystem.



### Building an Entrepreneurship Platform in Beijing

China Mobile Group Beijing Company Limited focused on supporting the development of small and medium enterprises by sharing our resources and capabilities to help startups overcome their common challenges such as high costs, insufficient capabilities, lack of orders and financing difficulties.

- **Cost control**  
Launched the Network Infrastructure Green Channel to offer startups discounts in voice, data traffic, fiber broadband and cloud services.
- **Capacity enhancing**  
With our strong capabilities in areas such as process management, business support system and call center big data analytics, we helped startups such as DiDi and Mobike improve their operational efficiency and supported their growth.
- **Business development**  
We provided accurate site selection service for catering, entertainment and retail businesses in Beijing and granted small and micro enterprises free access to our Cloud Business Alliance App.
- **Funding support**  
We established a multi-dimensional credit scoring system that is connected to the credit information systems of more than 20 banks such as Bank of China and Shanghai Pudong Development Bank, accelerating the loan application process for startups.

#### Project progress



**135** small and micro enterprises received free Internet connection package upgrade;



**2,556** startups enjoyed the small and micro enterprise broadband packages that fit their needs, which reduced their cost by around **RMB5,000** per month per startup;



More than **150,000** orders were generated through the Cloud Business Alliance, benefiting **12,000** entrepreneurs;



Supported **1,000,000+** credit score checks on startups seeking bank loans.





## Online Crowdsourcing Platform Offering New Employment Opportunities

Leveraging our experience in sharing economy, we established the China Mobile Online Crowdsourcing Platform to crowdsource customer services and marketing tasks to the public. People with relevant skills could apply to become a member, and they would get system support from the platform to work online, creating employment opportunities for students, housewives and the disabled.

To date, the platform has received business development tasks from 26 provinces, such as Chongqing, Yunnan and Guangxi. Cumulatively, it has already handled 367 million calls and completed 37.76 million transactions with a 24% success rate and 95% service satisfaction rate. By 2017, a total of over 100,000 people had signed up as members, working about two hours of fragmented time per day on average and generating an average monthly of fragmented time income of approximately RMB1,500.

In Suining, Sichuan, Mr. Zhu was unemployed because his left hand was handicapped after an accident. In January 2017, he immediately signed up on the China Mobile Online Crowdsourcing Platform after learning that it would only take a computer and a pair of headsets to work. Soon he completed the training offered by the platform and started picking up service call tasks on the platform. Nowadays, bringing home RMB4,500 per month, Mr. Zhu is able to not only provide for his family, but also enjoy a greater sense of personal achievement through work.



# Enabling Intelligent Life

China Mobile continues to enhance its technological innovation capabilities in areas such as Internet of Things, big data and artificial intelligence, accelerates the development of digital homes and smart cities, and actively innovates on digital applications such as municipal security, transportation and medical care to address challenges our society faces. In 2017, there emerged a growing number of new applications in cities and remote areas alike to help tackle problems caused by imbalanced development.



## Intelligent Fire-fighting with IoT

It is a challenge for firefighters to use information solutions help fire control due to several difficulties, such as the impossibility in using daily information during firefighting, the inefficient transmission of information on the status of the disaster and the surrounding, and the lack of information on on-site conditions for command centers. China Mobile Group Jiangsu Company Limited developed the Fire Control Training and Operation Command Platform with the help of geographic information, Internet of Things and 4G technology, supporting field command and providing a higher level of protection to ensure the safety of firefighters with real-time command and operation visualization capabilities.

At 11:29 AM on 7 January 2017, a fire broke out in a plush toy factory located at No.2 Shugang Road, Hanjiang District in Yangzhou. With the new command system, the command center dispatched 16 fire engines and 54 firefighters to the scene in 20 minutes and completed the operational deployment within 8 minutes after arrival. Two people were rescued within 12 minutes and the fire was completed put out within 2 hours.

### The Rescue Process



#### Mobile app

Gathered data relating to fire hydrants, fire engines, fire fighters and fire control equipment to provide data support for command operations.

#### Command platform

Located the fire and dispatched a firefighter squadron.

#### Firefighter squadron

Received dispatch command, deployed the vehicle-mount navigation system on the front fire engine to automatically plan the optimal route.

#### Field command

Command center sent information on on-site conditions, rescue plan and resources to mobile 4G-empowered field operation command tablets, which were used by field commanders to deploy resources and hold audio-video conferences with the command center.

#### Firefighters

Firefighters were equipped with IoT gears such as indoor GPS, self-contained breathing apparatus (SCBA), biometric bracelets and toxic gas monitors, with which they collected key information such as on-site pictures, rescuers' paths, vital sign data, SCBA pressure level, surrounding temperature and toxic gas density, and communicated with the command center in real time.



The intelligent command center provided smart rescue directions that aimed at ensuring the safety of the rescue crew after they entered the scene of fire. Moreover, through the operational command system, each operation step can be recorded accurately, providing effective data support for post-rescue analysis and evaluation.

- Sun Panlong, Deputy monitor of the Fire-control Command Center, Yangzhou Fire Department



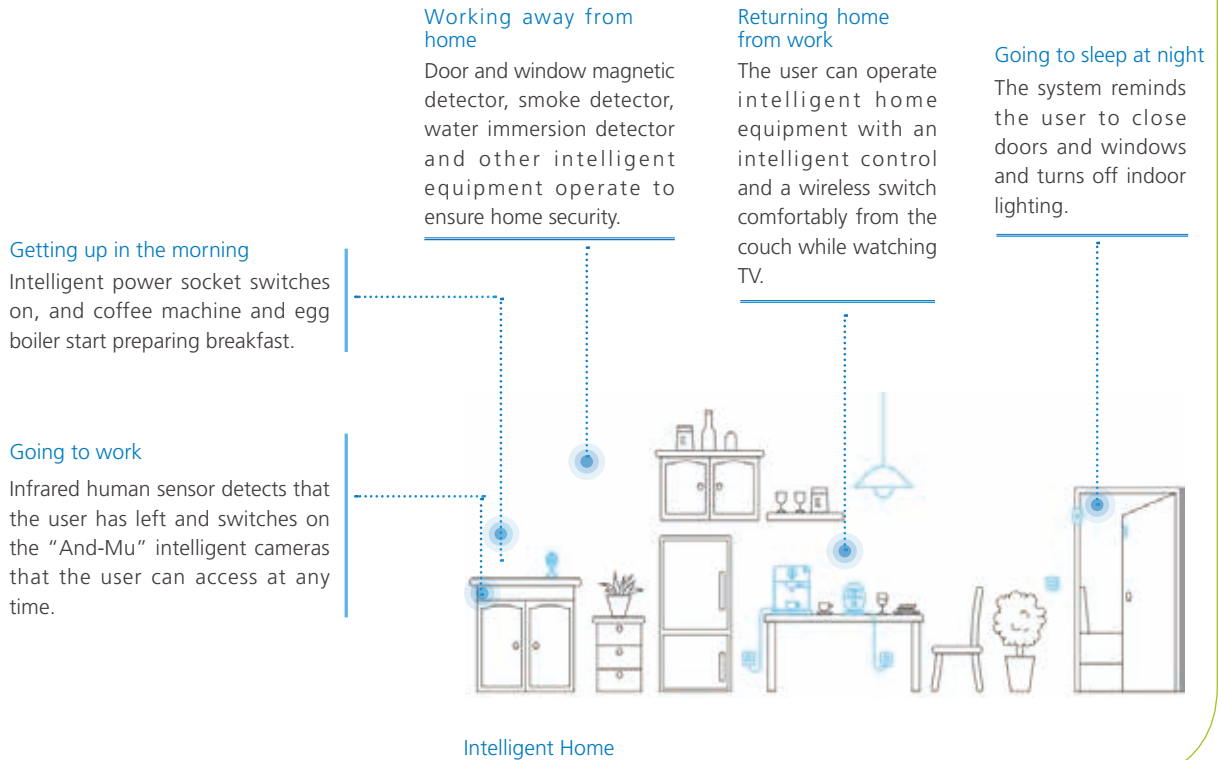
After the new platform was put into operation, the average rescue time was shortened by one third and the operational efficiency was raised by 50%. The command system now handles fire alarms in 13 cities and has responded to 8,387 fire alarms. In the future, we will introduce drones, big data thermal analytics and NB-IoT into field monitoring, commanding and decision-making support to provide greater protection for firefighters and people nearby.





## Intelligent Home with “And-Mu”

“And-Mu” is a series of intelligent camera products and intelligent sensor components developed by China Mobile based on mobile Internet and IoT technologies, such as door and window sensors, temperature and humidity sensors as well as human body sensors. They can be accessed and operated remotely on both mobile terminals and computer terminals, allowing users to enjoy intelligent home services around the clock.



## Improving Shared Bicycle with NB-IoT

Shared bicycle is an innovation that provides a green low-carbon solution for the last-mile travel needs of urban residents. However, its rapid development has also created problems such as excessive deployment of bicycles, parking chaos and inaccurate positioning, turning convenience into nuisance for users and urban management officers. China Mobile Group Zhejiang Company Limited collaborated with value chain partners and developed an electronic lock system based on NB-IoT technology to help solve the problems of disorderly parking and unstable unlock signals, allowing the precise positioning and real-time monitoring of bicycles.





## Optimizing Medical Care System with mHealth

Mobile communication technology can overcome geographic barriers and improve the accessibility of public resources in less developed areas in China. This could help alleviate the uneven distribution of public resources such as medical care and education.

Mr. Liu, a patient at the Nan'an Hospital, Fujian, was diagnosed with thyroid nodules. While consulting his doctor, Mr. Liu said he wanted to hear the opinions of oncology experts from the provincial hospital before deciding whether to receive surgical treatment. His doctor connected Mr. Liu with Doctor Li, the director of the oncology department at the Fujian Provincial Hospital, for an online consultation session using the Remote Medical Platform. Doctor Li reviewed Mr. Liu's profile and medical records and concluded that there was no need for surgery. Mr. Liu said, "It took me less than half an hour to be examined by a senior expert from the provincial hospital using the online application. If I went in person, I would have spent much longer time and more money on the travel and registration alone."

The Mobile Health Platform of Nan'an Hospital is one of the many cases of application of China Mobile's mobile health solutions. The platform integrates several functions, such as expert consultation, ECG, medical imaging and emergency treatment. It not only allows experts and patients to have "face to face" interaction remotely through video chat, but also enables the exchange and sharing of medical information among different hospitals, such as medical records, X-ray, CT and B ultrasound. To date, Nan'an Hospital has successfully solved over 200 cases of difficult diagnoses through the remote diagnosis platform, carried out 22 remote surgical guidance sessions, and successfully handled 18 emergency cases. The platform has truly made quality medical care more accessible at the grassroots level.

Currently, China Mobile has developed a series of mobile health solutions, such as electronic medical record, regional healthcare, mobile diagnosis, intelligent hospital, medical and health big data as well as distant medical teaching and learning, to help patients save time and money and realize more efficient allocation of medical resources.



## Protecting Security with Mobile Neighborhood Watch

In 2017, we further promoted the deployment of the 6995 Security Information Service launched earlier in Yunnan and other places, which helped villagers organize neighborhood watch with informatization solutions, in order to support rural security protection and rural affairs management.

Xingan League is in the northeast of the Neimenggu Autonomous Region and southeast of the Greater Xingan Range. Its economic development has been constrained by various conditions, such as small population, scattered animal husbandry layout and inconvenient transportation, which have also created challenges for disaster relief and aid operations. China Mobile Group Neimenggu Company Limited developed the Security Information Platform by integrating voice and SMS services with grid management. The Platform is equipped with the functions of "Group Call for Help" and group SMS. With only one call to the designated number, local farmers and herdsman could get help from their neighbors, neighborhood security patrols, village doctors and visiting legal consuls. To date, the Platform already covers all 1,395 administrative villages and border posts of the league, serving nearly 250,000 farmers and herdsman.

**Before** The emergency call services of "110", "119" and "120" all faced the problems of slow responses due to local geographic and population distribution patterns, as well as insufficient social service capabilities due to the lack of public servants at village level.

**After** Both the "110" Police Dispatch Center and local village officers have access to emergency calls online, allowing them to respond to disasters and emergencies promptly. Village leaders can better serve the local communities by organizing social services and sending public notifications through the Platform.



# Sharing a Better Life

All people in China must be involved to achieve the commitment to building a moderately prosperous society in all respects. China Mobile has long been committed to narrowing the digital divide between urban and rural areas, to helping poor areas fully make use of local resources and achieving self-sufficiency. We have carried out partner assistance and fixed-point poverty alleviation work for many years, lowered the threshold of using communication services for poor groups through preferential tariffs for targeted poverty alleviation, and improved the poverty alleviation work efficiency through creating a targeted poverty alleviation platform. We created a basket solution for rural development, which helps rural areas achieve poverty alleviation and reduction targets and accelerate the process of new-type urbanization by providing basic communications and network services and introducing e-commerce platforms and applications of information products and services into those areas. Meanwhile, we also relied on China Mobile Charity Foundation to integrate the Internet thinking into innovating charity service model and work together with related parties to help poor areas and disadvantaged groups to share a better life.

## Contributing to Targeted Poverty Alleviation

Since 2002, the parent company of China Mobile has carried out a series of partner assistance and fixed-point poverty alleviation projects, covering eight counties in five provinces, namely Xizang, Qinghai, Heilongjiang, Xinjiang and Hainan where we work together with local governments to introduce more than 100 projects for the benefit of the people in education, public welfare, industrial support, and cultural construction, etc. As of the end of 2017, the parent company of China Mobile had invested more than RMB430 million in partner assistance and fixed-point poverty alleviation.



### Poverty Alleviation for Xizang

In 2017, China Mobile team for poverty alleviation for Xizang paid repeated visits to poor herdsman families and provided customized technical trainings on construction, driving, cooking and knowledge about defending own rights etc. We offered trainings to 153 people in 2017 and lifted some of the families out of poverty by helping them find jobs. Our poverty alleviation team also carried out more than 90 charitable activities to promote the development of local education in Xizang. At of the end of 2017, we have donated the education aid in the amount of RMB1.2356 million which benefited more than 4,800 person-times.

### Preferential Tariffs for Targeted Poverty Alleviation

We continually promoted very-low-price services package and family cards to low-income people and more than 200 million customers have been benefited. Meanwhile, we established targeted poverty-alleviation preferential tariffs for poor areas, which had benefited 1.27 million person-times by the end of 2017.

- Customers from registered impoverished families could additionally receive 100MB of free data traffic or 100 minutes of free call in one year and get special regional poverty alleviation traffic package of 1GB per month for RMB9.
- Customers from registered impoverished families were provided with broadband discounts.

### Helping the Construction of a “Beautiful Countryside”

The “Beautiful Countryside” App developed by China Mobile Group Heilongjiang Company Limited contributes to the production conditions by providing various apps on computers, mobile phones, touch screens and monitoring screens etc; working as tools of recording and analyzing poverty alleviation information for grass-roots officers and front-line poverty alleviation cadres; providing farmers with information on agricultural production and technologies, an online trading platform for agricultural products and entertainment services such as movies and music; and providing users with information on rural tourism to help promote the development of the local tourism industry.

Moreover, the “Beautiful Countryside” App can monitor the whole process of growing, transporting and sale of agricultural products, so consumers can get all the information about the agricultural products from the field to the table by scanning QR code on their mobile phones. The “Beautiful Countryside” App helped local people to greatly enhance their traceable green and organic food brands and export the green agricultural products to countries namely Russia, Kazakhstan, Belarus, Poland, Germany, Holland etc., notably boosting the development of local economy.



After using the ‘Beautiful Countryside’ App, the sales volume of our agricultural products has increased significantly. In the past, we struggled to sell the agricultural products. Currently, the demand for agricultural products has exceeded our supply.

- Mr. Yan, farmer from Fruits & Vegetables Cooperative, Fuyu County, City of Qiqihar



## “Internet + Targeted Poverty Alleviation”

The Targeted Poverty Alleviation System was an innovative product developed independently by China Mobile, and officially put into use since the end of 2015. Currently, the platform has been applied in 45 cities and counties in 6 provinces, namely Hunan, Henan, Anhui, Shaanxi, Yunnan and Jiangxi and trialed in 25 cities and counties in 11 provinces, covering 6.44 million impoverished people and serving more than 330,000 poverty alleviation cadres at the end of 2017. It has improved the accuracy and efficiency of our poverty alleviation work.

The system consists of two parts, being a mobile poverty alleviation application and a big data management and analytics platform, and has helped solve lingering problems and difficulties regarding collection of statistics, team management and access to social resources, etc. related with our previous work on poverty alleviation.

To date, the system has become a bridge for connecting impoverished people with social charitable assistance. As of the end of 2017, 2,245 impoverished people from Puyang City in Henan had received more than 45,000 person-times of help from netizens nationwide in the amount of more than RMB1 million.



### One Mobile Phone

It connects all parties involved in the poverty alleviation work, such as the impoverished group, poverty alleviation managers and personnel, and social resources.



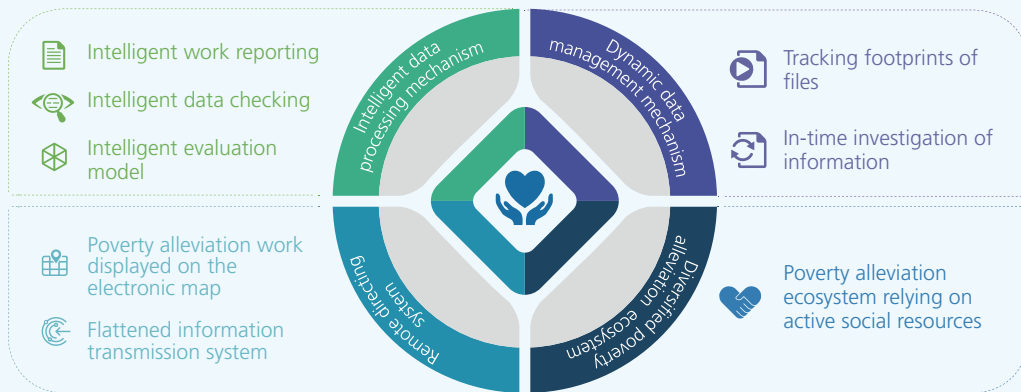
### One System

Leveraging on data collection, data retention and data analysis, etc., we enable poverty alleviation personnel to upload and update in real time poverty alleviation information with all records reserved, help managers manage the working teams efficiently, and understand the work and progress of poverty alleviation in time to facilitate well-informed decision-making.



### One Platform

We make resources from all parties, such as education, finance, projects, etc., available on an open platform, provide impoverished people with unified access to resources and information regarding e-commerce and crowdfunding, and provide an online help-seeking platform for impoverished communities enabling social forces to build a poverty alleviation ecosystem together.



The China Mobile Targeted Poverty Alleviation System has been a great boost to our work in Puyang City by analysing the poverty alleviation situation accurately, devising informed measures and helping the cadres learn about related policies and share their work and progress in a timely manner.

- Li Zigang, Deputy Director of the Poverty Alleviation Office of Puyang City, Henan Province





## A Better Connected Life for People of "Cliff Village"

Atuleier Village is located in Zhiermo Town, Zhaojue County, Sichuan Province, which is nearly 1,000 meters above the foot of the mountain. Villagers go in and out of the village mainly by climbing vine ladders and lead a hard life. China Mobile Group Sichuan Company Limited overcame lots of difficulties to provide the villagers with telecommunication services and change the former "Cliff Village" to a modern information-based model village.

### Connecting the "Cliff Village" to the wider world

On 20 November 2016, China Mobile Sichuan was a pioneer in establishing its 4G network services for the "Cliff Village" and launched the first home broadband service on 19 April 2017. China Mobile Sichuan has already invested more than RMB2 million for building mobile and broadband networks by now. Currently, villagers can not only connect to the outside world and make video calls with family members at all time and places, but also watch all kinds of programs on their high-definition broadband networked TVs which enrich their entertainment life.

### Helping improve income with the "And-Xiaobao"

We helped villagers build sales outlets for agricultural products by providing "And-Xiaobao" our self-developed e-commerce platform, and provided one-to-one trainings for them. The platform helped villagers leverage the advantage of fertile land and transform the sale of agricultural products from retail to centralized sale improving their family income by 18%.

### Building new convenient lives for villagers

We have established comprehensive broadband service stations both at the foot of the mountain and on the mountain, as well as an banking/information station at the top of the mountain to provide mobile and bank related services to villagers. In addition, we provided the children in the village with a wealth of education resources through our Education Cloud Platform. We also established a Cloud Video System and a "Clairvoyance" video monitoring and security system.



In the past, some assemblers would deliberately squeeze down prices upon learning that we were from the 'Cliff Village'. It was very hard for us to make money. Now, the cooperative agency has been established in our village and raises over 400 sheep. 7,000 navel orange trees are growing well at the foot of the mountain, and we are also growing more walnuts and green prickly ash on the mountain. We will plant amorphophallus albus and raise Yanying chickens next year. I plan on planting sanchi for 2 mu and may grow more if it all goes well.

- Mosewuha, local villager



## Internet Town Contributing to New Types of Urbanization

Based on the construction of Internet town, China Mobile Group Chongqing Company Limited has accelerated the construction of information infrastructure such as broadband, dedicated line and video monitoring system in counties, towns and rural areas, promoted the use of 4G terminals, and popularized high-quality internet connection.

### • Supporting grass-roots governmental administrative services

We support grass-roots government departments to make use of mobile communication and relevant platforms to realize working and collaborative management at all time and places and help improve the working efficiency. Currently, new e-administrative systems, such as Easy Government Affairs, Office Automation System of Handset Version, and Cloud Corporate Information, cover 90% towns and 60% administrative villages in Chongqing.



### • Helping establish a safe and mutual assistance system within communities

Through the safety and mutual assistance system, we divided local residents in the community into grids, each of which consists of about 10 to 20 families, in order to realize mass prevention and protection against public security and emergency incidents and help improve the efficiency of security work for grass-roots communities. The system has served over 100,000 users in Chongqing.



### • Leading the development of rural industries

In addition, the Chongqing Company created a rural e-commerce platform for farmers to support rural eco-tourism industry, in order to promote rural industrial structure adjustment and the economic and social development by informatization and provide continuous intelligent solutions for new types of urbanization.



## Deeply Involved in Charity Work

With the core principle of “sincerity, commitment, harmony and sharing” for the charity work, China Mobile mainly focuses on strategic charity areas such as helping vulnerable social groups, supporting education development, and promoting environmental protection etc. Since the establishment of China Mobile Charity Foundation in 2009, we have continuously improved the charity management system and carried out strategic charity projects, such as the China Mobile “Blue Dream” Educational Aid Plan, China Mobile “Heart Caring” Campaign, Warm China Campaign 12.1, and gained wide recognition.

In 2017, taking opportunities of public sport activities such as the Xiamen Jimei Marathon, Yumen International Cross-Country Running, etc., we combined the “Blue Dream” Educational Aid Plan and the “Heart Caring” Campaign with the “MIGU Running” campaign to rally public participation in and support of these two charitable activities by donating running steps. In 2017, our “MIGU Running” app won the award of the Best Charity Team at the 5th China Internet Audio & Video Convention.

**4<sup>th</sup>**

Was ranked 4th in the “Charity Development Index of Top 300 Chinese Companies” and included in the “2017 Top 10 Charity Companies” by the CSR Research Center of the Chinese Academy of Social Sciences.

The China Mobile “Heart Caring” Campaign was included in the “2017 Top 10 Charity Programs”.

## Targeted Poverty Alleviation through Education



### China Mobile “Blue Dream” Educational Aid Plan

China Mobile “Blue Dream” Educational Aid Plan is a charitable program initiated by China Mobile in collaboration with the Ministry of Education and China Education Development Foundation, aiming at assisting the education development in the poor areas in middle and western China. The program supports construction of educational infrastructure in middle and western China and promotes balanced development of education by providing trainings for principals and teachers, donating China Mobile Libraries and multimedia classrooms, etc. In 2017, we continuously adopted the model of shadowing training plus remote trainings for China Mobile Principal

Training Project which trained 11,296 principals from primary and secondary schools in rural areas. We also donated 270 multimedia classrooms with remote multimedia teaching devices and the “And-Education” products to primary and secondary schools in rural areas in 3 provinces, namely Sichuan, Jiangxi and Shaanxi. In the past eleven years, we have cumulatively invested more than RMB140 million in the “Blue Dream” Educational Aid Plan, trained 103,828 primary and secondary school principals from 23 provinces in middle and western China, and donated 2,310 China Mobile Libraries and 2,030 China Mobile multimedia classrooms.



### “Reading Help” Activity

In 2017, the MIGU Company initiated the “Reading Help” activity for targeted poverty alleviation through education together with China Social Poverty Alleviation Websites. Based on the mode of “Charity, Reading and Running”, we donated digital libraries to primary and secondary schools in impoverished areas to narrow the reading gap between teenagers from urban areas and rural areas. The activity received a total of 21,844 attendances with a cumulative running mileage of 108,462 kilometers. According to the plan, we donated over 1,500 Kindle MIGU e-book devices in aggregate to students in rural areas.



## Preserving Cultural Inheritance



### “National E-reading”

The MIGU Company actively participated in the “National E-reading” activity by sending MMS to migrant workers’ mobile phones and to recommend free e-reading columns to them. As of the end of 2017, the “E-reading” activity has covered over 7 million customers in aggregate and provided 360 kinds of reading materials including e-books, e-magazines, audio books, education, animes, etc. These reading materials covered content of inspirational, social science, popular science, employment, entertainment, etc. with over 50 million Chinese characters in aggregate.

### “Showing Respect to Intangible Cultural Heritages and Ingenuity”

In 2017, the MIGU Company co-organized a series of live broadcasting activities with the title of “Showing Respect to Intangible Cultural Heritages and Ingenuity”. 20 broadcasting activities were held in Tianjin, Anhui, Shandong and Beijing on platforms of MIGU Live and MIGU Video etc.. Through those programs, netizens could understand shoemaking skills of Tianjin Laomeihua Shoe Making Company, Hui ink-stick making skills, Mandarin duck and mantis boxing, Weifang embroidery, Ceremony of Confucius, etc., and participate in real-time interactions. Cumulatively, our programs had been viewed by 94.55 million person-times and raised the attention on intangible cultural heritages.

## Living the Voluntary Spirit

As of the end of 2017, the number of registered employee volunteers at China Mobile reached 111,000 and the total hours of employee voluntary services reached 568,000 hours. Through our “With You” volunteer brand, we conducted a total of 5,018 volunteer activities in 2017 and provided RMB6.1 million to the aid in aggregate.



### Philanthropy Stars of China Mobile of 2017



**Li Na:** “Charity is an endless marathon for love. I will continue along this path.”

Li Na is the head of the Weihai East Road Store, China Mobile Group Shandong Company Limited. Participating in China Mobile’s “Chun Lei” supporting activity of pairing up with girls since 2014, she has been taking care of and gave motherly love to Sun Mengmeng, a girl from a single-parent family in Lvjiafu Village, Wangcheng East Street, Laixi City, for 4 consecutive years. In addition, she also delivered daily necessities to impoverished families in the community together with other colleagues.



**Zhang Junyong:** “Do my best to help people who need me.”

Zhang Junyong is a key account manager of the Government & Enterprise Client Service Center of Nujiang Lushui Branch Company, China Mobile Group Yunnan Company Limited. Since 2012, he has taken the initiative to participate in the village poverty alleviation work in Nipuluo Village, Gudeng Town, Lushui City. In May 2017, he helped villagers plant Chrysanthemum Morifolium Ramat for more than 180 mu by overcoming lots of difficulties with 13 registered impoverished families involved.



**Xie Yunpeng:** “Charity work requires clear goals, values and perseverance and giving recognition, opportunities and care to those in need.”

Xie Yunpeng is an employee from System Product Department of China Mobile Online Services Company. Since June 2016, he has been working on the construction and operation of the targeted poverty alleviation system in poor areas in Puyang City. After efforts of near 300 days and nights, the system has provided information services for 200,000 impoverished people and 21,000 poverty alleviation cadres in the city. At the same time, he also helped impoverished families trade their agricultural products to increase their income through China Mobile’s e-commerce channels and resources.

# China Mobile and SDGs

In 2015, the United Nations officially released *Transforming Our World - the 2030 Agenda for Sustainable Development*, putting forward 17 Sustainable Development Goals (SDGs) for the period between 2015-2030 to eliminate poverty, fight against inequality and injustice, and resolve problems of climate change. The information and communication industry is one of the industries that is most closely connected with the SDGs. It can make positive contributions to the realization of the 17 SDGs by providing digital products and services and consolidating relevant resources and capabilities for innovation. China Mobile has identified a list of the most material sustainable goals from the perspectives of the needs of stakeholders and its own situation and focused on promoting the realization of these goals with its unique capabilities.

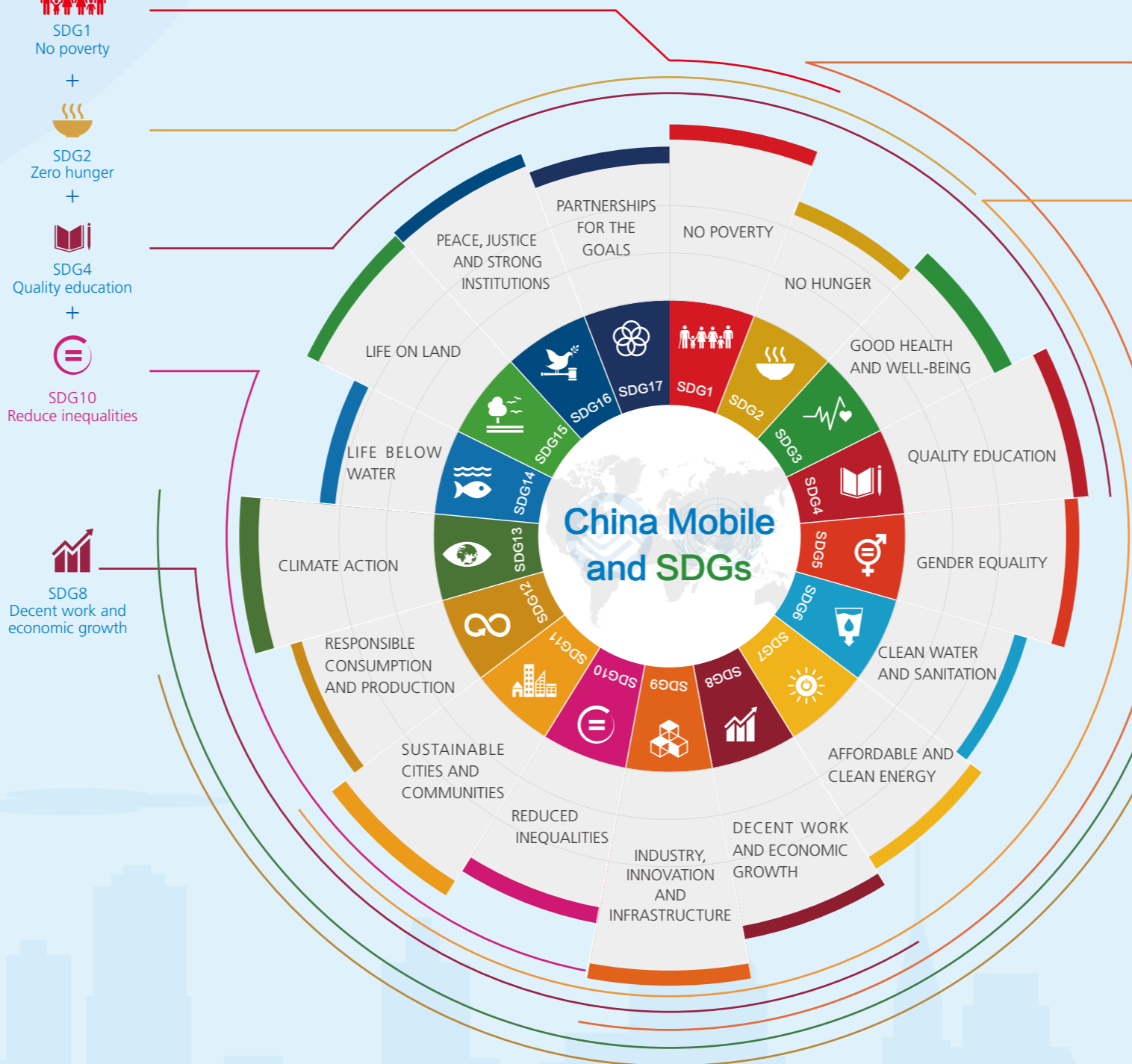
## Our Actions

- Implement effective partner assistance and fix-point poverty alleviation programs based on local conditions. As of the end of 2017, the Parent Company had invested over RMB430 million in total.
- Explore the "Internet + Targeted Poverty Alleviation" model in depth and support poverty reduction and urbanization in rural areas. The targeted poverty alleviation system has been adopted in 45 cities and counties in 6 provinces.
- Continuously carry out China Mobile "Blue Dream" Educational Aid Plan and China Mobile "Heart Caring" Campaign, under which we trained approximately 104,000 primary and secondary school principals in rural villages across Central and Western China, donated 2,310 China Mobile Libraries and 2,030 multimedia classrooms, and helped 4,498 impoverished children with congenital heart disease receive medical treatment.



## Our Actions

- Ensure equal employment opportunities and a safe and comfortable workplace for our employees and provide them with welfare support; improve our remuneration incentive mechanism; and support employees' career development path.
- Provide EAP support for all employees and more than 320,000 person-times have participated in EAP; implement the "Happiness 1+1" program to promote physical and mental health of employees covering 318,000 person-times.
- Improve both online and offline training mechanism, provide rich learning resources, encourage knowledge upgrade and foster the innovation capabilities of our employees.
- Encourage employee innovation and entrepreneurship, having invested RMB79.55 million in entrepreneurship and innovation programs, served 154,000 people on our entrepreneurship and innovation platform, and 1,819 teams have participated in innovation and entrepreneurship events we organized.
- Our communication capability open platform has served over 130,000 enterprises; our unified authentication platform has processed an average of more than 500 million accreditations per day; our OneNET IoT platform has provided capacity building services to 56,000 developers.



## Our Actions

- Promote the construction of infrastructure of 4G, broadband and IoT etc. and accelerate the research and development of 5G technology and innovation; shape a sharing and win-win new Internet of Everything ecosystem by promoting capability collaboration and innovating together with industrial chain partners.
- Improve the well-being of people by exploring the development of "Internet+" applications in areas of administration, medical care and education; support the digital transformation and upgrade of traditional industries and the development of intelligent cities by innovating ICT applications and improve the efficiency of resource utilization.



## Our Actions

- Continue to implement the "Green Action Plan" and actively respond to climate change. In 2017, we invested RMB140 million in the implementation of the "Green Action Plan", with overall energy consumption per unit of information flow decreased by 40% and a total power saving of 2.14 billion kWhs.
- Strengthen technology R&D, participate in setting standards and achieve full life cycle energy conservation and emission reduction from feasibility research, design, procurement to implementation. In 2017, we achieved 100% electronic procurement, which could reduce paper use by 616,000 copies of documents annually. 67% of our new main equipment came in green packaging.
- We have developed a series of low-carbon ICT applications such as intelligent meter reading, intelligent parking system etc., promoted various environmental protection and pollution control solutions such as video pollution monitoring, and encouraged employees and the public to participate in environmental protection charitable activities in order to build an environment friendly society.



Since the United Nations put forward the Sustainable Development Goals, we have greatly enhanced our capabilities in terms of larger network scale, better connection quality, and richer applications. This has generated fresh momentum for our economic growth and transformation of our development mode and allowed us to make considerable progress in helping to solve the problem of imbalanced and inadequate development and responding to climate change. However, we know that the economic and environmental challenges in front of us are still grim, and the realization of the SDGs will not be easy. In the future, China Mobile will continue to strive to provide inclusive and high-quality connectivity services and empower an increasing number of people to make their lives better with information technology. We will continue to focus on development challenges and key areas in collaboration with our industrial chain partners, develop new technologies and applications such as 5G, IoT, big data, cloud computing and artificial intelligence, and create and promote more digital solutions to make greater contribution to the comprehensive, coordinated and sustainable development of society and become an active player in building a community with a shared future for mankind.

# Case For Change

## China Mobile “Heart Caring” Campaign

Congenital heart disease is one of the most serious congenital diseases. A common disease with a high morbidity and fatality rate, it also has a great chance of being cured. Statistics from the China health authorities show that there are about 150,000 newborn children with congenital heart disease every year in China, and only about 60,000 of them can be treated in time.

Currently, there are two major challenges for helping children with congenital heart disease from families in poverty: lack of screening mechanism and high costs for operation. Firstly, as the screening of congenital heart disease needs advanced equipment, it is usually difficult for children with congenital heart disease to receive diagnosis in time, thus missing opportunities of cure; secondly, the surgery for congenital heart disease usually costs tens of thousands or even hundreds of thousands of yuan and generally not affordable to their families. Families may get poorer because of paying for such high cost.

Targeting at these challenges, we launched the China Mobile “Heart Caring” Campaign together with our partners in August 2011. The program provides free screening for congenital heart disease for children in remote areas or from impoverished families by using mobile screen buses equipped with mobile medical system and provides free surgical treatment for children diagnosed with the disease.

As of the end of 2017, China Mobile had cumulatively provided free congenital heart disease screening for 39,488 impoverished children in Neimenggu, Liaoning, Henan, Shanxi, Qinghai, Guangxi, Ningxia and Hebei, and sponsored the free surgical treatment for 4,498 children diagnosed with the disease. In addition, the program also improved the patient database for these children.

### CASE FOR CHANGE

Yu Wenhao, aged 9, lives in Wujiazhangzi Village, Chaoyang City, Liaoning Province. In 2014, her family members brought her to the congenital heart disease screening provided by the “Heart Caring” Campaign after receiving an SMS notification of such free screening. The result showed that the girl, who has been perceived as suffering from chronic weakness, was actually suffering from congenital heart disease. Luckily, Wenhao has fully recovered after receiving treatment supported by the Campaign.

In 2017, the “Heart Caring” Campaign became the only case from China included in the CaseforChange program of GSMA. Please scan the QR code to learn more about the “Case for Change” story of the “Heart Caring” Campaign told by the young actor Zhang Yishan as he visited the Yu family.



### Cooperation Model

- China Mobile Charity Foundation**  
 Donating program funding, providing overall coordination and management for the program and the mobile health system, and organizing volunteer activities.
- Provincial Civil Affairs Bureau and Provincial Philanthropic Federation**  
 Collecting child patient information, providing aids to families of child patient, and managing the fund of the program.
- TEDA International Cardiovascular Hospital**  
 Setting up the mobile screening team, providing screening services and surgical treatment for child patients.

### Program Features



Combining mobile screening with mobile medical care

China Mobile donated three mobile screening buses for this program, and installed the mobile medical care system buses, turning the buses into a three-in-one platform that could perform mobile screening, data transmission and remote diagnosis. It effectively solved the challenge that the young patients are living in dispersed areas and cannot receive diagnosis in time. The treatment cost has been reduced. The Company also sent over 10 million philanthropic SMS messages for free to help parents learn about this program and provide them with updates on the conditions of their children under treatment.



Combining charity aid with employee volunteer services

The program has established a volunteer platform and organized employee volunteers to raise the awareness of congenital heart disease screening, give lectures on congenital heart disease, accompany the child patients at hospitals, and conduct follow-up visit of the patient families. Volunteers also designed book reading and site seeing events for the child patients. A total of over 4,600 volunteer hours has been recorded since the beginning of this program.



Combining surgical treatment sponsorship with rehabilitation support

China Mobile Charity Foundation fully funds the operation cost for the children. Provincial Civil Affairs Bureaus and Provincial Charity Federation provides transport and accommodation allowance to their families. TEDA International Cardiovascular Hospital waives part of the operation cost for the children to ease the financial burdens on their families.



China Mobile ‘Heart Caring’ Campaign has given a second life to my child, and a promising future to our family!

- Liu Yanping, parent of the child patient

Although it was unfortunate that families have children born with congenital heart disease, it was fortunate that there is the ‘Heart Caring’ Campaign that gave them help.

- Liu Zhigang, Vice President of TEDA International Cardiovascular Hospital



# Transformation to Enable Better Connectivity

## Our Actions



Implemented the “Big Connectivity” strategy, accelerated organizational transformation, enhanced our information communication and digital service capabilities, and promoted the overall economic growth and progress of society with our own development.



Formulated the *13th Five-Year Energy Conservation and Emission Reduction Plan* based on the national 2020 emission reduction target, putting forward our targets of reducing the overall energy consumption per unit of information flow by 45% and reducing the overall energy consumption per unit of telecom business by 40% in 2020.



Continuously innovated informatization based low-carbon solutions by combining the development of IoT to contribute to energy conservation and emission reduction of society.



Constructed the “One System Three Rings + Three Verticals” system for entrepreneurship and innovation, develop entrepreneurship and innovation incubation platform, and supported employees to engage in innovation and entrepreneurship.

## Our Achievements in 2017

- We formed professional IT subsidiaries, made further breakthroughs in reforms of specialized operations, kicked off R&D in vertical sectors, and made further progress in the transformational development of digital services.
- The overall energy consumption per unit of information flow decreased by 40% compared with last year, and the overall energy consumption per unit of total telecommunication business volume decreased by 29% compared with last year.
- Achieved complete electronic procurement and 100% of company-wide bidding operations are done over the electronic procurement platform.
- Encouraged our suppliers to use green packaging and the green packaging usage ratio of new equipment reached 67% in 2017.
- 154,000 employees participated in internal entrepreneurship and innovation activities with 2,535 projects established cumulatively.

## Our Commitments for 2018

- We will accelerate our digital transformation, attract innovative talents, and continue to deepen specialized operation, intensify the strategic layout in pioneering information technologies such as 5G and AI, and promote the digital dividend that benefits all.
- We will make sure that the growth of our overall energy consumption is lower than 13%, and achieve a 15% decrease in overall energy consumption per unit of information flow and a 10% decrease in overall energy consumption per unit of telecom business compared with 2017.
- We will continue to promote green packaging and encourage our suppliers to fulfill their commitment to centralized procurement, ensuring that the green packaging usage ratio of new main equipment would not be lower than 60%.

# Strategy-led Transformation

In the face of accelerating technological advancement and industrial changes and the new era of "Internet of Everything", China Mobile insists on its "Development Driven by Connectivity", and continually follow the "Big Connectivity" strategy, making full use of the leading role of the strategy, accelerate transformation and development of digital services, in order to provide better connectivity services by planning long-term strategy, developing capabilities, forging ecosystem, and encouraging innovation.









## Accelerating Transformation and Development



## Strengthening Specialized Operational Competences

Since 2010, the Company has set up 13 specialized companies that engage in specialized market operations, production operations and functional services. It was a major transformation from the traditional telecom business organized by geographical locations to a “31+ N” specialized operation system, which would allow us to consolidate internal resources, release innovative momentum, improve operational efficiency and create synergies, so as to form the organizational system for our transformation to become a digital service provider and stimulate the internal vitality of our organization.

### China Mobile’s Progress in “Specialized Operations”

- 2010  Established China Mobile International Limited to focus on international and overseas markets and reduce international roaming tariffs.
- 2011  Established the Information Security Center to centralize the management of information security and manage spam messages; established China Mobile Group Device Company Limited and released self-owned brand terminal devices to lead the development of terminal device industry in China and support domestic device manufacturers to grow.
- 2012  Established China Mobile IoT Company Limited to explore the IoT market and create an open platform for globalization; established China Mobile Group Finance Company Limited to strictly control capital risk and improve capital utilization efficiency. In 2017, it received the “Best Risk Management Finance Company of the Year” Award given by the Financial Times in conjunction with the Institute of Finance of Chinese Academy of Social Sciences.
- 2013  Established the Procurement Sharing Services Center to control procurement risks and promote cost reduction and efficiency improvement, annually saving procurement cost by about 20% and reducing procurement time by about 50%.
- 2014  Established MIGU Company Limited to consolidate content resources and specialize in the digital media industry; established China Mobile Online Services Company Limited to improve service quality and efficiency and innovate Internet service modes; and set up China Mobile (Suzhou) Software Technology Company Limited and China Mobile (Hangzhou) Information Technology Company Limited to promote independent innovation and internalize core competencies.
- 2015  Established China Mobile Internet Company Limited to build an open platform for capabilities and bring together tens of thousands of developers and entrepreneurs. In 2017, the unified authentication platform processed an average of more than 500 million accreditations per day.
- 2016  Established China Mobile Investment Holdings Company Limited to focus on capital management, improve the efficiency of capital allocation, and invest in emerging areas.
- 2017  Prepared to establish China Mobile Information Technology Company Limited to support internal centralized operations of IT system and explore external expansion of specialized IT services.



#### Enjoy More with MIGU, Today!

MIGU was established by China Mobile as a specialized subsidiary targeting the mobile Internet area and responsible for the integration of digital content products’ supply, operation and service. It has five subsidiaries, namely MIGU Music, MIGU Video, MIGU Digital Media, MIGU Interactive Entertainment and MIGU Comic. User scale: As of 31 December 2017, MIGU was serving 500 million users with 9 key products, with a total installed base of over 1 billion.

- **Content platform:** MIGU is a leading platform of copyrighted digital content in China, with a total of over 17 million songs, 4.3 million videos, over 1,200 audio and video live broadcasts, over 500,000 books, over 30,000 games and 470,000 episodes of comics.
- **Expanding vertical fields:** The MIGU Movies cooperates with over 7,200 movie theaters, MIGU Running users have registered a total running distance of 157.6 million kilometers, and MIGU AI provides an average of over 85 million times of AI interactions such as translation and speech recognition per month. In 2017, MIGU Comic application received the “Swan Award for Chinese App Innovations” given by Chinese Mobile Innovation Week & Chinese Mobile Phone Design and Application Innovation Competition.
- **Intelligent hardware:** Introduced several intelligent hardware such as the Mobius voice recognition AI headset, MIGU Mobaihe, MIGU Speaker, Kindle x MIGU ebook reader, etc.
- **IP Operation:** Over 100 million viewers watched online program of the MIGU Exchange, the Digital Reading Convention attracted over 100 million readings, and the MIGU Comic Cultural Festival live broadcast was watched 37.32 million times.

# Environment-friendly Development

Climate change is a severe global challenge to achieving sustainable development. In compliance with the requirements for building an ecological civilization, China Mobile has undertaken in-depth implementation of the “Green Action Plan” for 11 consecutive years. We have gradually optimized the energy efficiency management system and strengthened green operations management, both internally and of the value chain. We have committed ourselves to helping realize a low-carbon society by developing innovative green solutions based on IoT and other new technologies.

## Green Action Plan

We have continued to implement the “Green Action Plan” aimed at energy conservation and emissions reduction since 2007. We encourage the participation of all members across the organization and embed energy conservation and emissions reduction initiatives into our entire business. We create green shared value through reductions in the consumption of equipment resources and energy and the operating costs.

- In terms of green operations, the overall energy consumption per unit of information flow decreased by 40% compared with the previous year, and the overall energy consumption per unit of total telecommunication business volume decreased by 29% compared with the previous year.
- To make the telecommunications machinery rooms more energy efficient, we renovated 331 machinery rooms and completed on-site inspection of 48 machinery rooms in 16 municipal companies. We found 12 typical problems and requested respective companies to take immediate corrective measures.
- To promote green procurement, we built and put into application the China Mobile supply chain management system and China Mobile e-procurement and bidding system since 2013. A total of about 38,000 e-procurement projects were managed across the Company in 2017, resulting in an annual reduction of about 616,000 copies of paper-based bid documents. Under circumstances where each copy contains an average of 500 sheets of paper, the reduction represents 1,541 fewer tonnes of paper, or 774 fewer tonnes of coals burned, or 1,348 tonnes of wood used, and is equivalent to a reduction of more than 3,500 tonnes in CO<sub>2</sub> emissions, and 464 thousand tonnes in wastewater disposal, totaling over RMB18 million in social cost savings.
- To promote the use of green packaging, we urged our suppliers to fulfill the centralized procurement commitment. As a result, the percentage of newly purchased equipment using green packaging in 2017 reached 67%.
- To include industry partners in our energy conservation efforts, we continue to reinforce our leadership in setting standards. We worked with suppliers to continuously update energy conservation grading standards regarding five types of equipment including the wireless equipment, IT equipment, transmission equipment, etc. We have applied the standards in the centralized procurement of equipment in full to constantly reduce energy consumption of new network equipment.



### Improving Climate Change Response Management Mechanism

We have designated a department responsible for climate change management. We have incorporated energy efficiency indicators into the subsidiaries’ KPI, which include overall energy consumption per unit of information flow, overall energy consumption per unit of total telecommunication business volume, PUE of machinery room, electricity fee (in hundred) per fixed asset etc., and linked them directly with remuneration of managers in charge.

We have set up an energy conservation and emissions reduction work panel at both headquarters and subsidiary levels to address the management of climate change and energy related issues at the business, network and office levels. The work panel assesses whether the key activities or projects are in line with the Company’s climate change and energy strategies by convening regular meetings and submitting decision-making recommendations to the Company’s management personnel.



We have a comprehensive risk management framework in place to incorporate climate change related issues into the identification, screening, integration, sorting and management of risks and opportunities. And we have integrated a variety of environmental policies into our risk management process, such as the national carbon emissions reduction targets, the national energy conservation and emissions reduction policy, and the carbon emissions trading scheme. We run monthly tracking on the measures and progress of energy conservation.

We have established an environmental performance index system based on the various types of sustainable development standards and the CDP questionnaires that discloses environmental performance data on a regular basis. The system not only covers our own performance in environmental management, but also sets forth requirements for partners on our value chain such as our suppliers.



## Energy Conservation and Emissions Reduction in Winter Heating

Xinjiang experiences quite bad air pollution during winter, when heating is provided. For this reason, implementing efficient heating system management becomes a necessary measure for reducing energy consumption and carbon emissions. Owing four data machinery rooms, two transmission power houses, and two refrigeration centers, etc., the China Mobile Xinjiang Data Center was in great need to reduce energy consumption. The company gradually formulated the “13251” data center operations management energy conservation plan in 2017 based on about 12 months’ exploration, reducing the daily electricity consumption from 25,512 kWh to 9,280 kWh. Over 2.9 million kWh electricity was saved during the winter heating season, equivalent to RMB1.45 million in electricity fee savings.



The energy conservation and emissions reduction plan implemented by the China Mobile Xinjiang Cloud Computing and Big Data Center helped reduce electricity use by a great deal and has proved effective in reducing pollutions by enterprises. It shows the social stewardship of China Mobile as a state-owned enterprise. I much look forward to its broader application in the future.

- Li Yun,

Secretary of Party Working Committee of the Xinjiang Cloud Industry Park Management Committee



## Exploring Green Applications

We harness IoT and other new technologies to continuously innovate ICT-based green solutions and support the prevention of environmental pollution and the transition to a low-carbon lifestyle.



### Smart Pollution Monitoring for a Greener World

Guangxi is known for its striking natural scenery. To strengthen enforcement of the environmental laws and improve environment of the entire region, China Mobile Guangxi Company collaborated with the Nanning Environmental Monitoring Division and ran the pilot project “video monitoring of key pollution sources” in 13 major polluting enterprises in Nanning since June 2016. The smart video monitoring of pollution sources has played an integral role in guaranteeing the smooth running of the online monitoring system of the Environmental Protection Department

and the authenticity of the pollution data collected from monitored companies.

The project now monitors 41 major polluting enterprises in Guangxi Province, covering nearly one hundred discharge sites and pollutant monitoring and sampling sites. As a result, the situations of illegal or unauthorized pollutant discharge cases has notably declined. The project will be further promoted throughout Guangxi to provide real-time, accurate, and smart monitoring of all 238 state-controlled key pollution sources of the region.

### NB-IoT Smart Street Lamp Management System

“Smart Street Lamps”, the first NB-IoT application project in Jiangsu Province jointly developed by Nanjing Branch of China Mobile Jiangsu Company and the Nanjing Street Lamp Management Bureau was officially put to commercial use in February 2017, meaning Nanjing could now use precise single-lamp control in its street lighting system.

Different from traditional street lamps, the Smart Street Lamps can be switched on and off automatically at places

where long-time light is not needed by sensing passing traffic or pedestrians and dim automatically at late night when no one is around. Moreover, base stations and cameras can be set up on the charging points to monitor weather conditions like haze. If each Smart Street Lamp helps save about RMB10 per month in electricity fee, more than 100,000 smart lamps throughout Nanjing could help save electricity fee at a sum of about RMB12 million a year.

### Intelligent IoT Energy Efficiency Applications

#### • Intelligent Meter Reading

Using IoT technology, China Mobile has helped users install IoT modules and IoT cards on their water, electricity and gas meters. Information on the families’ water, electricity and gas use is thus transmitted back to the control centers, achieving remote meter reading and making meter reading much more efficient. The smart meter reading helps cut down on the use of manpower and vehicles and reduce our carbon footprint.

#### • Smart Parking

“Park Easy” is a smart parking solution jointly developed by China Mobile and a few partners. The system detects the status of parking spaces and combines it with the background parking service platform to release real-time information about available parking spaces and divert traffic, among other functions.

#### • Smart Charging Points

China Mobile utilizes technologies like 4G+ and IoT cards to assist smart charging point operators in their data analysis and efficient management and provide electric vehicle charging point operators with data transmission plans that are high-speed, reliable and secure.

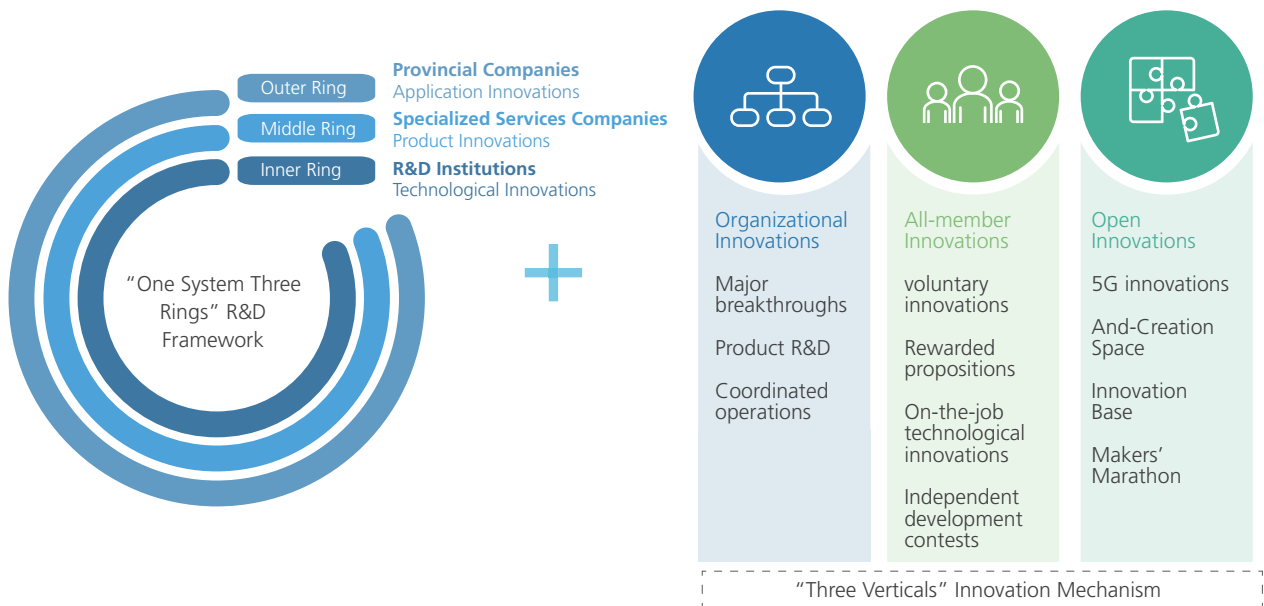


# Innovation-inspired Dynamics

Innovation is a key driver for our development in the digital economy. In 2017, China Mobile further improved its innovation system, and focused on exploring new approaches to enable the open and all-member innovations. The Company established the open innovation platform based on 5G and featured capability openness to integrate innovation resources along the industry chain and flourish the ecosystem. It also built innovation channels by various means such as innovation incubation, all-member on-the-job innovation and independent development competitions in order to inspire the innovative creativity of all employees and promote voluntary adjustment of the talent structure to support the Company's transformation and development towards emerging fields such as digital services.

## Building an Entrepreneurship & Innovation Framework

Leveraging the opportune integration of "Internet plus" and "Mass Entrepreneurship and Innovation", China Mobile establishes the overall "One System Three Rings + Three Verticals" innovation and entrepreneurship framework. It stimulates the innovative capacity of organizations at all levels and all staff members and presents a new path for the Company's transformation and future development.



▲ Overall layout of entrepreneurship & innovation

## Embracing Innovation and Collaboration

### Global Partnership Conference

200 partners attended the China Mobile Global Partnership Conference in 2017, up from 90 when it was first held in 2013.

### Global TD-LTE Initiative

The Global TD-LTE Initiative (GTI) initiated by China Mobile now counts 132 operator members and 163 partners.

### Open-source Platform ONAP

The open-source platform ONAP (Open Network Automation Platform), jointly founded by China Mobile and AT&T, has attracted 57 partners as of 2017, covering more than half of the world's mobile users.

### Strategic Cooperation Framework Agreement

Over 120 cooperative projects have been launched under the Strategic Cooperation Framework Agreement (SCFA) signed among China Mobile, NTT docomo of Japan and KT of Korea in 2011, showing solid progress in jointly promoting new technology verification and project cooperation in 5G and IoT.

### 5G Automotive Association

We joined the 5G Automotive Association (5GAA) in 2017, and united with SAIC Motor and Huawei Technologies to form the 5GAA China Working Group tasked with promoting the full integration of and application of innovations in the ICT and auto-mobile sectors.

## Facilitating Entrepreneurship & Innovation

### • Crowd Innovation

Employees can team up to propose joint innovation or entrepreneurship projects based on their own specialties or hot topics, regardless of the theme or area. 2017 saw the participation of 154,000 employees in the internal "Entrepreneurship & Innovation" activities, with projects from 99 teams selected for incubation at the "And-Creation Space" out of the 2,535 projects established.

### • Crowd Support

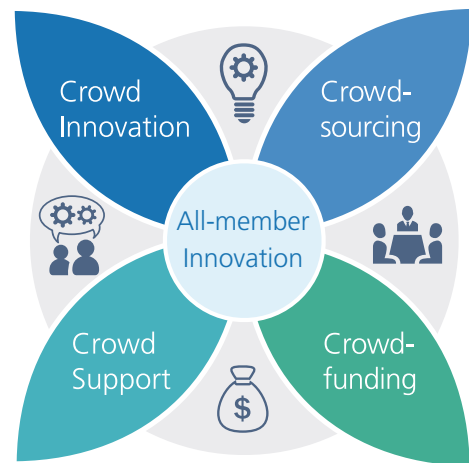
We support the entrepreneurship and innovation initiatives of SMEs by providing them with needed network environment, promotion channels, funding, etc. through our And-Creation Space, 5G Innovation Center, and Innovation Bases etc. In this way, chances of success of their projects are increased.

### • Crowdfunding

We provide employees with "And-Mi", our original currency for investing in the "Entrepreneurship & Innovation" projects. We encourage participation and sharing of project profits by rewarding successful investors with doubled amount of "And-Mi". The value of investment exceeded "And-Mi" 300 million in 2017, enabling over 20,000 employees to enjoy asset appreciation through investment.

### • Crowdsourcing

Challenges and difficulties that our subsidiaries meet with during project development, operations and promotion are collected by means of "Big Issue" and "Small Issue". We engage the collective wisdom of our employees to help solve problems in our daily operations.



Such efforts have also put us in a stronger position for fostering innovative talents. As of 31 December 2017, about 500 employees had been selected to work at the "And-Creation Space" through the Company's incubational entrepreneurship and innovation initiatives and issue-specific activities. Around 10% employees have transferred, temporarily or permanently, to other work units via incubated projects, demonstrating a new way of cross-unit talent exchange and acquisition.



### I+ Maintenance Robot

As a network administrator, Liao Zhifang and his team deal with tens of thousands of network alerts every day, a complicated and repetitive process involving a great deal of manpower. To make their work more efficient, Liao submitted proposal for the "I+ Maintenance Robot" project together with his team and started to work at the "And-Creation Space", where they committed themselves to realizing automated alert management. With incubation support from the Space, they finished development of I+'s core functions and ran it successfully in China Mobile Guangdong Company. As of 31 December 2017, I+ has helped Guangdong Company handle 4.57 million alerts, while enhancing the reparation rate to above 30%. The I+ project has currently been successfully incubated and is to be applied in Shanxi, Inner Mongolia, Tianjin and more cities in the future. With manual monitoring replaced by machines, a new way of monitoring will be adopted which puts machines in primary charge of alert monitoring and humans in an assisting role.

### The Second Makers' Marathon themed "And-5G · Shaping Future"

We hosted the 2nd Makers' Marathon themed "And-5G · Shaping Future" in April 2017, with an aim to promote the Capability Open Platform and sharing of APIs, and to harvest the wisdom of partners and developers. The competition lasted for eight months, and 819 teams from nine regions competed under a variety of themes such as unified authentication capability, OneNET IoT platform, digital home, and 5G innovation. The event significantly boosted the entrepreneurial and innovative creativity among the youth and along our industrial chain, and equipped us with a stronger pool of talent.

# Performance Report

China Mobile adheres to standardized sustainability frameworks, actively identifies its own economic, social and environmental impact, and constantly improves its management approach to and practice on sustainability issues. In 2017, we followed the United Nations Global Compact Ten Principles, the UN 2030 Agenda for Sustainable Development and China's national SDGs action plan, the GRI Sustainability Reporting Standards of the Global Sustainability Standards Board (GSSB), the ISO Guidance on Social Responsibility (ISO 26000) and the HKEx Environmental, Social and Governance Reporting Guide, and referred to the evaluation criteria of the Dow Jones Sustainability Indices (DJSI) during our reporting process. In order to present our sustainability performance in a comprehensive, objective and accurate way, we conducted a stakeholder survey and a materiality analysis, and elaborated on our management approach as well as performance data on each sustainability issue.



Stakeholder Engagement and Materiality Analysis		37
<b>Economic Performance</b>	39	
Corporate Governance and Risk Management	39	
Financial Performance and Tax Payment	39	
Anti-corruption and Compliance	40	
Information Security and Privacy Protection	41	
Network Quality	42	
Service Quality and Customer Rights Protection	43	
Research, Development and Innovation	44	
Supply Chain Management	45	
<b>Environmental Performance</b>	46	
Reducing Carbon Emissions	46	
Reducing Environmental Resource Consumption	47	
Waste Management	48	
Electromagnetic Radiation Management	49	
<b>Social Performance</b>	50	
Fair Employment and Non-discrimination	50	
Human Resources Development	51	
Workplace Health and Safety	52	
Respect and Protect Human Rights	53	
Public Welfare	54	
Overseas CSR	55	

# Stakeholder Engagement and Materiality Analysis

We have established various communication channels and maintained regular and close communication with six groups of stakeholders, including customers, employees, shareholders and investors, governments and regulators, value chain partners, and community and environment representatives. During report preparation, we issued questionnaires to identify the sustainability issues that different stakeholder groups were concerned with and conducted a materiality analysis of these issues to determine the key disclosure of this report. In 2017, we were awarded the Bronze Award of "Stakeholder Engagement - Best Practice" by the international independent award organization Mer-Comm Inc. under the Questar 2017 Awards.

Stakeholders	Key Issues of Concern (Top 5) *	Engagement Approaches
 Customers	1.Information Security and Privacy Protection 2.Network Quality 3.Service Quality and Customer Rights Protection 4.R&D and Innovation 5.Corporate Governance and Risk Management	1.Customer Day 2.10086 Hotline 3.Weibo and WeChat Communication 4.Online and Mobile Customer Service Platforms 5.Customer Satisfaction Surveys 6.Mobile App 7.CEO Mailbox
 Employees	1.Network Quality 2.Information Security and Privacy Protection 3.Service Quality and Customer Rights Protection 4.Workplace Health and Safety 5.Financial Performance and Tax Payment	1.Employee Representative Conferences 2.Regular Trainings 3.Performance Communication Mechanism 4.MMS Magazine Mobile Weekly 5.Employee Recognition Mechanism 6.Employee Grievance Mechanism 7.CEO Mailbox
 Shareholders and Investors	1.Service Quality and Customer Rights Protection 2.Financial Performance and Tax Payment 3.Anti-corruption and Compliance 4.Information Security and Privacy Protection 5.Network Quality	1.Annual Reports, Interim Reports and Announcements 2.Annual Shareholders General Meetings 3.Investor Briefings and Conferences
 Governments and Regulators	1.Network Quality 2.Information Security and Privacy Protection 3.Service Quality and Customer Rights Protection 4.Financial Performance and Tax Payment 5.Anti-corruption and Compliance	1.Regular Reports and Communication 2.Specific Investigation and Meetings 3.Relevant Forums 4.CEO Mailbox
 Value Chain Partners	1.Information Security and Privacy Protection 2.Service Quality and Customer Rights Protection 3.Network Quality 4.Corporate Governance and Risk Management 5.Financial Performance and Tax Payment	1.Procurement 2.Supplier Web Portal, Service Station and Supplier Hotline 3.Training and Assessment 4.Forums and Meetings 5.CEO Mailbox
 Community and Environment Representatives	1.Information Security and Privacy Protection 2.Service Quality and Customer Rights Protection 3.Network Quality 4.Corporate Governance and Risk Management 5.R&D and Innovation	1.Community Activities 2.Mass Media 3.New Media (Weibo, WeChat) 4.Charity Platform 5.CEO Mailbox

\*Note: The top 5 key issues of concern of each stakeholder group come from results of the stakeholder survey. Please refer to the materiality analysis on P38.



## CSR Communication Day

On 15 June 2017, concurrent with the release of our 2016 Sustainability Report, we held our first "CSR Communication Day" event which, together with our "Customer Day" event, aimed to get opinions and suggestions from our stakeholders regarding our corporate social responsibility practices. 4,872 self-owned sales outlets participated in these events and organized a variety of activities with local characteristics. 1,004 China Mobile representatives, including general managers of branch companies and department directors of provincial subsidiaries, were present to communicate with 75,000 customers.

Indicators	2015	2016	2017
CSR trainings participation (person-times)	276,519	353,958	471,669
Number of emails received in CEO Mailbox	2,058	1,033	1,279
Number of customer visits on Customer Day (person-times)	106,289	105,076	102,060
Number of complaints and inquiries handled on Customer Day (cases)	101,560	106,020	91,960

In 2017, based on the materiality analysis of various sustainable development issues, we evaluated the economic, environmental and social impact of these issues on stakeholders and the impact of our operations on these issues and identified issues of high materiality to be highlighted in this report.

### Identification

- International Standard Benchmarking
- HKEx Guide on Environmental, Social and Governance Reporting
- GRI Standards
- DJSI
- SDGs
- UNGC Ten Principles
- Sustainability Key Issues and Industry Key Issues Analysis
- Corporate strategy analysis

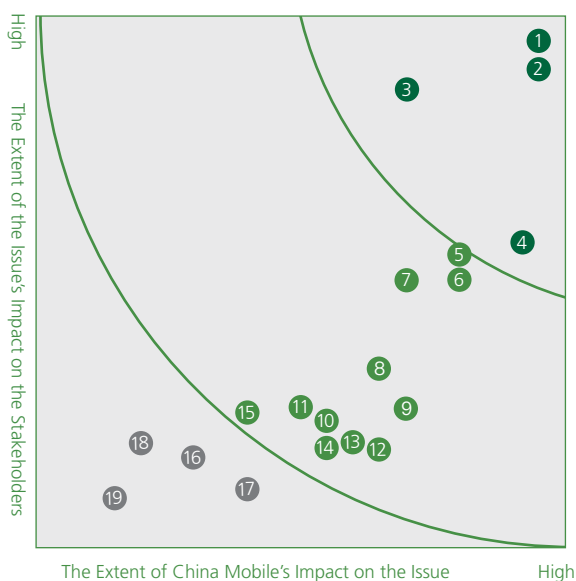
### Evaluation

With respect to sustainability issues, we carried out key stakeholder survey, using online questionnaires (2,609 valid questionnaires received) to collect stakeholders' feedback on the impacts of different issues on them.

With reference to industry practice, we teamed up internal and external experts to evaluate the impact of China Mobile's operations on different sustainability issues.

### Report Preparation

Constructed a materiality matrix (see the figure below) to highlight issues to be prioritized in the report



- |  |  |
|--|--|
| 1 Information Security and Privacy Protection    | 11 Human Rights  |
| 2 Network Quality                                | 12 Supply Chain Management                             |
| 3 Service Quality and Customer Rights Protection | 13 EMF Safety  |
| 4 Financial Performance and Tax Payment          | 14 Carbon Emissions                                    |
| 5 Corporate Governance and Risk Management       | 15 Corporate Charity                                   |
| 6 Anti-corruption and Compliance                 | 16 Equal Opportunity Employment and Non-discrimination |
| 7 R&D and Innovation                             | 17 Waste Management                                    |
| 8 Workplace Health and Safety                    | 18 Stakeholder Engagement                              |
| 9 Human Resources Development                    | 19 Overseas CSR  |
| 10 Resource Use                                  |  |

	Issue	Report Content	Boundary
High Materiality Issues	Information Security and Privacy Protection	Optimizing Connectivity Capabilities Economic Performance	Internal
	Network Quality	Economic Performance	Internal
	Service Quality and Customer Rights Protection	Optimizing Connectivity Capabilities Economic Performance	Internal
	Financial Performance and Tax Payment	Economic Performance	Internal
Moderate Materiality Issues	Corporate Governance and Risk Management	Economic Performance	Internal
	Anti-corruption and Compliance	Economic Performance	Internal
	R&D and Innovation	Optimizing Connectivity Capabilities Empowering the Digital Economy Sharing a Better Life Economic Performance	Internal & External
	Workplace Health and Safety	Social Performance	Internal
	Human Resources Development	Innovation-inspired Dynamics Social Performance	Internal
	Resource Use	Environment-friendly Development Environmental Performance	Internal & External
	Human Rights	Social Performance	Internal & External
	Supply Chain Management	Economic Performance	Internal & External
	EMF Safety	Environmental Performance	Internal & External
	Carbon Emissions	Environment-friendly Development Environmental Performance	Internal & External
Low Materiality Issues	Corporate Charity	Sharing a Better Life Social Performance	Internal
	Equal Opportunity Employment and Non-discrimination	Social Performance	Internal
	Waste Management	Environmental Performance	Internal & External
	Stakeholder Engagement	Stakeholder Engagement and Materiality Analysis	Internal & External
	Overseas CSR	Social Performance	Internal

## Economic Performance

### ► Corporate Governance and Risk Management

#### Challenges and Priorities

With the implementation of the “Big Connectivity” strategy and expansion of our business scope, our operation and management are faced with new requirements and risks. China Mobile improved its corporate governance structure and accountability system, optimized its risk and crisis management systems and strengthened the construction of its internal control and internal audit management systems, thereby providing system assurance for the continuous reform, innovation and capacity building of the Company.

#### Management Approach

1. Governance Overview: China Mobile has established sound corporate governance structure and practices following the principles of integrity, transparency, openness and efficiency. We have established and improved various policies, internal control systems and other management mechanisms and procedures over the past years. In 2017, the Board of Directors of China Mobile Limited (“Board”) comprised eight directors, namely Mr. SHANG Bing (Chairman), Mr. LI Yue (Chief Executive Officer), Mr. SHA Yuejia and Mr. DONG Xin as executive directors, and Mr. Frank WONG Kwong Shing, Dr. Moses CHENG Mo Chi, Mr. Paul CHOW Man Yiu and Mr. Stephen YIU Kin Wah as independent non-executive directors (INEDs). The Board currently has three major committees, including an Audit Committee, a Remuneration Committee and a Nomination Committee, all comprising INEDs, which provide advice and suggestions for the decision-making of the Board. Each of the Board committees is appointed and authorized by the Board and operates under its respective terms of reference. (For more information on our corporate governance, please refer to our annual report or website [www.chinamobileltd.com](http://www.chinamobileltd.com))
2. Risk Management: We continuously assess the internal and external risks of business development and optimize our comprehensive risk management framework in line with our corporate structure and business characteristics. Our business divisions and subsidiaries extensively participated in risk assessment. We established a three-level hierarchical risk management structure, including the Audit Committee at the Board level, functional departments, business units, and supervision and evaluation departments at the department level, and the Internal Control and Risk Management Expert Bank at the functional position level, with which we achieved specialized management over planning, decision-making, execution and implementation. Having established regular risk assessment mechanism and procedures, we conduct major risk assessment annually to evaluate our risk exposures and levels in areas such as strategy, market, finance, operations, legal compliance and information technology, and implement risk control measures and requirements at each level of the risks assessed.
3. Internal control: We make continuous improvements in a risk-oriented manner to our internal control system and internal control risk training system in compliance with Section 404 of the *Sarbanes-Oxley Act* and the principles of systematization and standardization. We formulated the *China Mobile Management Measures for Internal Control* and relevant guidelines for guiding the construction of internal control sys-

tems at all internal units. We developed and maintained internal control manuals and matrices for key business operations and key control points selected by focusing on high-risk areas and management key points, thereby optimizing our risk control requirements in a holistic way from the framework to the content and from the substance to the process.

4. Internal audit: Internal audit departments are set up at the Company's headquarters and its subsidiaries to carry out independent internal audit for the respective entities. We revised the *China Mobile Internal Audit Regulations* to lay out more specific provisions on the definition, tasks, reporting mechanism as well as organizational and personnel requirements of internal audit. We also established auditing units in Tianjin, Wuhan and Chengdu directly managed by the Internal Audit Department at the Company's headquarters. The operation of these units further strengthened our auditing capabilities and independence.

#### Progress in 2017

1. In 2017, we carried out major risk assessments, completed the 2017 Annual Risk Assessment and Midterm Risk Review, and prepared the *2017 Comprehensive Risk Management Report* and the *2017 Mid-Term Risk Assessment Report*. In addition, we formulated specific countermeasures regarding two emerging risks, namely the risk of competitive substitution of the Internet and transformation of traditional businesses and the risk of network technology evolution and IT support.
2. We revised 76 internal control requirements, including 13 newly added control points, focusing on improving the internal control requirements for capital, asset and project management processes and the prevention against fundamental management risks at the end level.
3. We further intensified our audit supervision over 4G development, home broadband business, business outsourcing, information security, engineering investment and fundamental management to support the implementation of our strategic initiatives and enhance our risk prevention and management. We applied big data and cloud computing technologies in the auditing process and saw significant improvements in the capability, efficiency and coverage of our audit. We also focused on rectification of audit findings to improve the effectiveness of our audits.
4. We convened four Board meetings during the year, and mainly discussed our annual results, interim results, dividends, renewal of continuing connected transactions, the annual investment report, adjustments to the composition of the Board and its committee, and the sustainability report.

### ► Financial Performance and Tax Payment

#### Challenges and Priorities

To effectively cope with financial risks and optimize our financial performance, China Mobile actively attached great importance and responded promptly to government taxation reform policies, and studied and implemented government policies on invoice management and tax collection system updates to ensure tax compliance.

## Management Approach

1. The Company strictly abides by the taxation laws and regulations of China and other regions where it operates and is listed, upholds business ethics, and pays taxes in accordance with relevant laws and regulations. In terms of tax system, we formulated the *China Mobile Tax Management Measures* and the *China Mobile Invoice Management Measures* to improve our tax management system and guidance for tax operations and prevent tax management risks.
2. We formulated the *China Mobile Tax Management Manual* and the *China Mobile VAT Invoice Operational Guideline*. We also regularly issued *China Mobile Tax Information Briefing* based on recent updates and changes in tax laws and regulations related to the Company to ensure prompt and standardized compliance with tax obligations.
3. The Company maintained a sound communication and reporting mechanism with tax authorities and continued to improve our compliance with tax laws and regulations.

## Progress in 2017

1. The Company compiled the *China Mobile 2018-2020 Tax Management Work Plan* with the objectives of complying with tax laws and supporting the strategic transformation of the Company and enhanced tax management capabilities focusing on IT and personnel, aiming at establishing a tax risk management and support system by 2020 in support of the strategic transformation of the Company.
2. For the specific performance of financial indicators such as operating revenue, operating costs, employee salaries and benefits, and payments made to investors, please refer to our *2017 Annual Report*.

Indicators	2015	2016	2017
Operating revenue (RMB billion)	668.3	708.4	740.5
Wireless data traffic revenue (RMB billion)	200.9	288.2	364.9
Taxation (RMB billion)	35.1	35.6	33.7

## ► Anti-corruption and Compliance

### Challenges and Priorities

To fully and effectively comply with domestic and foreign legal and regulatory requirements, China Mobile gradually established and perfected the enterprise compliance management system and worked together with stakeholders to improve the awareness and management of compliance. Meanwhile, the Company established an integrity and anti-corruption work system integrating “education, prevention, discipline and accountability” to ensure the Company’s healthy development with integrity.

### Management Approach

1. To ensure the governance compliance, business compliance and management compliance of the Company, we continued to promote the “Compliance Escort Plan” and innovated the China Mobile Compliance Management System through the construction of a sound compliance organizational structure, the perfection of compliance management systems, the standardization of compliance processes, and the nurturing of a compliance culture. We also focused on the continuous im-

provement of our governance compliance and management compliance capabilities with measures such as clarifying the responsibilities of compliance management, formulating the basic systems of compliance management, issuing compliance guidelines for key areas, establishing a compliance management process mechanism step by step, and advocating a culture of compliance within the whole group.

2. The China Mobile integrity and anti-corruption work system blends the four fundamental tasks of “education, prevention, discipline and accountability” into a coordinated whole to realize systematic integration and implementation procedure optimization. The Company uses “execution and effectiveness” as the acceptance standards, and seeks to address problems thoroughly through implementation of the four tasks and two standards. In terms of policy systems, we established and updated a series of policies and regulations to promote business integrity and punish corruption, including the *China Mobile Guidelines on Fostering a Culture of Business Integrity*, the *China Mobile Business Integrity Commitment System*, the *China Mobile Regulations on Employee Discipline*, the *China Mobile Management Measures on the Registration of Gifts to Employees*, and the *China Mobile Accountability Regulations for Management Staff*.
3. The Company has established a multi-dimensional supervision framework. It adopts a problem-oriented approach and carries out inspection and supervision in innovative ways. It also has open channels for internal and external supervision with a variety of whistle-blowing channels, such as mailbox, dedicated number, the CEO Mailbox, and on-site whistle-blowing during supervision and inspection. We also strengthened the collaboration of our internal audit and anti-corruption efforts, and continuously supervises the economic responsibility performance of key areas and the management of our subsidiaries.

## Progress in 2017

1. In 2017, the Company released ten compliance guidelines on market competition, anti-commercial bribery, cooperation with law enforcement, information security, bidding and procurement, project construction, labor and employment, network security, conflict minerals and export control. We also issued a series of compliance requirements and guidelines for 306 key aspects and key issues and sorted out 663 compliance risks in key areas to strengthen the closed-loop management of compliance risks. Regarding hot issues and newly promulgated laws and regulations, we regularly release *Risk Compliance Briefing* to provide risk alerts and relevant management suggestions.
2. All our business units implemented the series of actions required by the compliance guidelines to promote the culture of compliance, such as announcing compliance initiatives, organizing employee awareness activities, trainings and education, putting up posters, and showing “Compliance Escort Plan” videos. We organized special trainings for personnel from key areas, such as bidding and procurement and project construction. 95% of the legal staff of the Group have participated in compliance training. Some of our subsidiaries required their suppliers to sign a compliance commitment as part of the bidding documents.
3. We promoted the construction of embedded risk prevention and control mechanism, further clarified responsibilities and strengthened the hard constraints on systems. Over 10,000 person-times were interviewed for reminder or reprimand cumulatively.

4. We carried out special inspections, “Look-Back” inspections and unscheduled inspections to monitor the rectification of problems. In the past five years, we have dispatched 47 inspection teams consisting of 606 people. More than 800 problems were identified during internal inspections, and 920 policies were established or revised.
5. We organized 3,580 awareness-raising monthly events on anti-corruption education, covering over 90% of our employees. We also innovated the anti-corruption and compliance education to attract employees to participate, such as website and app of the Discipline Inspection Group, Online University, mobile classroom, MMS classroom and other online education and training platforms.
6. During the year we received a total of 1,240 petitions, and 82% of the cases were handled and closed.



### Publishing the China Mobile Compliance Initiative

The Company actively promoted governance and operational compliance and officially released the *China Mobile Compliance Initiative* that upheld the compliance philosophy and concepts to “abide by laws, respect rules, honor commitments and pursue self-cultivation”. Our management staff all signed the initiative and made collective commitment and led their units to support the initiative to ensure compliance.

### Establishing the Compliance Management Mechanism for Key Areas

The Company formulated the “Six-Step Method” of compliance management for key areas. The six steps included optimizing systems, standardizing procedures, devising guidelines, preventing risks, providing training and setting up platforms. We selected eight key special areas closely related to our operations, and embedded compliance review into business processes, and incorporated compliance requirements into business content. Our compliance management mechanism for key areas was awarded the 2017 “First Class Achievement of China Communications Industry Fourteenth Corporate Management Modernization Innovation”.

Indicators	2015	2016	2017
Number of anti-corruption education activities in year	1,986	3,951	3,580
Participation of anti-corruption education and trainings (person-times)	761,800	696,106	722,720
Number of corruption cases disciplined in year	96	232	275
Number of employees dismissed and disciplined for corruption in year	140	302	414

## ► Information Security and Privacy Protection

### Challenges and Priorities

The *Network Security Law*, which came into effect on 1 June 2017, put forward comprehensive requirements for the protection of personal information. Meanwhile, various new forms of information fraud pose severe challenges to information security and privacy protection. China Mobile actively implements policy and regulatory requirements, takes the initiative in improving information security capabilities, strengthens the centralized control of spam messages, and coordinates resources to prevent and crack down on communication and information fraud.

### Management Approach

1. Regarding customer information protection, we improved our consumer information protection regulations and brought them fully in line with the requirements of national laws and regulations; constantly improved our capabilities by expanding technological applications, such as the “Vault Mode” and customer information masking, and strengthening account management and performance audit; and strengthened inspection and supervision, carried out regular third-party monitoring of our customer information security work, inspected provincial subsidiaries for their customer information protection, and identified risks and made rectification accordingly.
2. Regarding spam messages, we continued to improve our centralized business governance system, strategically allocated our resources nationwide to cover 3 categories and 10 specific projects, forming a closed-loop management cycle of generation, allocation, disposal and optimization.
3. Regarding preventing and combating information fraud, first, we strictly implemented real-name registration and punished distributors for resale of phone numbers and other unlawful practices; second, we standardized our key businesses, including the dedicated voice line, 400 number services and more; third, we strengthened the crack down on falsified caller ID; fourth, we promoted the use of technological solutions such as Customized Phone-Call Signature; fifth, we launched campaigns to improve customer awareness, improved our violation reporting mechanism by setting up sections on our portal website for whistle-blowing and fraud alerts, and disseminating fraud alert information through multiple channels, etc.; sixth, we explored the timely detection and intervention of fraud cases based on big data technology; seventh, we strengthened the tracing and accountability mechanisms, including the establishment of a tracing and investigation process for suspected fraud numbers covering 31 provinces, and the formulation and issuance of the China Mobile Accountability Measures for Information Fraud Prevention and Treatment; eighth, we formulated and issued the China Mobile Management Measures for Information Fraud Prevention and Treatment, shaping a long-term mechanism with standardized process.

### Progress in 2017

1. We revised the *China Mobile Regulations on Customer Information Protection*, which strengthened the requirements of customer authorization, “Vault Mode” technology coverage, and the management of third-party personnel. We also carried out on-site inspections regarding customer information protection of our provincial subsidiaries with 74 risks identified and rectified. In 2017, we did not have any major incident of customer data leakage.
2. We intercepted more than 200 million spam messages each month, and during the year we blocked over 562,000 harassment phone numbers, detected and intercepted over 2,273,000



pieces of information with pornographic content, shut down over 82,000 illegal websites, monitored and intercepted over 646,000 types of malware, and shut down 6,500 control terminals of malware.

- We launched the All-in-one National ID Inquiry System to further enhance user authentication and ensure compliance with the real name registration requirements. For key businesses, we required existing users to sign a new user contract, which contained specific prohibition on the resale and leasing of numbers, identity theft, use of forged ID, use of services against laws and regulations as well as abnormal patterns of use.
- In 2017, we blocked over 3.14 million fraud calls from overseas and over 37.08 million calls with false caller IDs and invalidated 21,000 numbers that violated regulations by making group voice calls each month on average.
- We organized provincial subsidiaries in Zhejiang, Yunnan and Shanghai etc. to explore big data-based solutions to identify and prevent fraud by suspending fund transfers in time. In collaboration with law enforcement authorities, we helped suspend RMB520 million from being transferred to fraud perpetrators.
- Regarding fraud alert, we actively carried out the integrated fraud scenario analysis with big data. In 2017, we published 71 typical fraud cases and sent out 3,640 million SMS fraud alerts cumulatively, identified and successfully terminated over 3.7 million fraud incidents and provided relevant support for their subsequent disposal, and sent a total of 7.2 billion Customized Phone-Call Signature fraud alerts over the year.
- Our "Big Data Spam Automatic Identification project" was awarded the "Best Practice Award for Big Data Application" by China Computer Federation (CCF). The "Telecom Operator Business Security Technological Guide" we drafted was recognized as an international standard by the International Telecommunication Union Telecommunication Standardization Sector (ITU-T), and our six projects including "Vulnerability Analysis, Detection and Automation Control Platform" and "Security Vulnerability Collection, Analysis and Alert Management" were recognized as the "2017 Telecommunication and Internet Industry Network Security Pilot Projects".



### Mobile Guardian Protects Mobile Phone Security

The Mobile Guardian toolbox developed independently by China Mobile can accurately identify security vulnerabilities in the mobile phone operating system, applications, components and configuration in 3-5 minutes without installing any software on the mobile handset. At the same time, because the entire analysis of the Mobile Guardian toolbox is completed in the phone memory with desensitization encryption, it will not retain or store user-related information, thus effectively preventing the leakage of user information. By the end of 2017, the Mobile Guardian toolbox had been used in more than 100 units and found and solved more than 100 thousand problems.

Indicators	2015	2016	2017
Decrease of complaints about spam messages year on year (%)	29.4	24.0	29.3
Number of fraud numbers dealt with	96,000	136,000	50,700

## ► Network Quality

### Challenges and Priorities

As digital services become increasingly integrated into everyday life, the impact of network interruptions on customers also increases. China Mobile endeavors to build a high quality network and attaches great importance to enhancing its emergency communication support capabilities to provide high quality communication services to cope with extreme weather, provide relief efforts after major natural disasters, and support various types of public events. We also make timely and transparent disclosure of network outages and the causes.

### Management Approach

- We allocate network resources in a scientific way to ensure coverage for important scenarios, optimize our end-to-end networks, improve the quality of our VoLTE service, and maintain our leadership position in 4G network quality.
- We constantly improve our communication support system focusing on "two mechanisms and three control forms", namely to ensure organizational and personnel readiness with the support mechanism for major events, ensure equipment and resource readiness with the emergency resource pool mechanism, ensure orderly preparation with the process and responsibility breakdown control form, ensure full coverage of emergency plans and exercises with the emergency plan and exercise control form, and ensure smooth on-site support with the on-site communication support matrix control form.
- We have developed a network security support system characterized by 4 "Rs", namely "clear responsibility, readily available resource, manageable risk, and timely response", and coordinated our capabilities from different fronts to enhance our overall support capability by using the same task list across different management levels, different business processes and different specialized fields.
- We continue to strengthen the training of our emergency response team, ensure the readiness of equipment and supplies and transport emergency supplies to coastal areas and areas along rivers to enhance our responsiveness in providing support for significant natural disasters such as nationwide floods.
- We publicly disclosed network disruptions and failures and their causes in accordance with the *Supervision and Management Method of Telecommunication Network Operations*.

### Progress in 2017

- We formulated the *China Mobile 2017 4G Wireless Network Construction Guideline* to focus on improving network access on common network blind spots including high-speed trains, university campuses, high-rise buildings, and places with limited upstream link.
- We completed a series of communication support tasks for major events and natural disasters and achieved the goal of "zero major network failure, zero major safety incident and zero complaint from key customers".
- We applied several new technologies and new approaches in carrying out communication support tasks, such as UAV high altitude base stations, 4G emergency satellite vehicles, and big data disaster relief support platform, etc.

- Our “Research and Application of Network Big Data Based Key Technologies for Intelligent Operation and Maintenance System” won the “2017 Science and Technology Second Class Award issued by China Institute of Communications, and our “Construction of New Home Broadband Operation and Maintenance Support System” won the “Third Class Award of the Communication Industry’s Modern Management Innovation Excellence Achievement” issued by China Association of Communications Enterprises.
- The VoLTE connection rate increased from 98.88% to 99.78%, the call delay was reduced from 3.23s to 2.80s, and the full call success rate of voice calls on high-speed trains increased from 84.67% to 89.87%.



### Emergency Communication Support after the Jiuzhaigou Earthquake

At 9:19 PM on 8 August 2017, a magnitude 7 earthquake occurred in Jiuzhaigou county, Aba prefecture, Sichuan. China Mobile Sichuan Company promptly set up an emergency support working group. For the first time, we applied the world’s leading UAV aerial base station in disaster relief, providing mobile communication signal coverage to the over 30 square kilometer area of Heyezha in the scenic area of Jiuzhaigou through the 4G base station mounted on the UAV.

### Communication Support for the Hoh Xil World Heritage

In July 2017, Hoh Xil successfully applied for recognition as world heritage, and was officially listed in the “World Heritage List”. China Mobile Qinghai Company set up a special communication support task force, who visited the main sites of the Hoh Xil world heritage area and developed a detailed communication support plan with full coverage of the main sites, providing high quality voice communication and stable data service for the world heritage application working group. Along the over 2,000 kilometers world heritage route in the alpine area, “there was a lack of oxygen but never a lack of mobile signal”.

### Communication Support for BRIC Summit

On 3-5 September 2017, the Ninth BRIC Summit was held in Xiamen. China Mobile Fujian Company ensured “high-speed, secure and stable” mobile communication service for the Summit by upgrading the network in key support areas, formulating emergency plans and carrying out emergency drills and network interruption repair exercises for different scenarios.

### Information Disclosure of Network Disruption

At 8:45 AM on 12 July 2017, China Mobile Beijing Company experienced a network disruption due to an equipment hardware failure, which affected the use of 4G data service of 96,000 users. China Mobile Beijing Company made a public announcement about this service disruption through its official Weibo at 4:27 PM the same day. The emergency support crew reacted promptly and the service was successfully restored at 9:30 PM on 12 July.

Indicators	2015	2016	2017
Number of 4G base stations (10,000)	110	151	187
Number of emergency communication support tasks	3,219	4,128	4,476
Significant political/economic event support	2,807	3,748	4,253
Significant natural disaster support	371	347	190
Significant accident or catastrophic event support	24	25	23
Public health incident support	0	2	0
Social safety incident support	17	6	10
Number of emergency support vehicles deployed	8,212	15,425	7,362
Number of emergency support equipment deployed (set time)	58,624	56,625	30,642
Emergency communication support personnel activated (person-times)	207,822	386,214	201,250

## ► Service Quality and Customer Rights Protection

### Challenges and Priorities

Nowadays, customer interactions are conducted increasingly through the Internet and new media platforms. The traditional service interfaces and service relationships between communications operators and their customers are also changing accordingly. Meanwhile, with the rapid implementation of our integrated development model with “four growth engines” consisting of the personal mobile market, corporate market, household market and emerging business, the complexity related to products, marketing, tariff and network is increasing tremendously, posing great challenge to our service support capabilities. Adhering to its service concept of “customer-centered and service-oriented”, China Mobile continuously explores new technologies, such as artificial intelligence and big data, to create an integrated service support system both online and offline, and strives to provide customers with responsive, timely, efficient and convenient services to their satisfaction.

### Management Approach

- Speed up system upgrades, carry out internal tests and whole-network technological verification tests, to ensure billing accuracy after canceling domestic long-distance charges and roaming charges.
- Focus on preventing unauthorized charges. We independently developed the SDK core technology to make our systems more difficult to crack for unlawful uses. We established a shared customer service center in Chengdu, set up a centralized 400 complaint hotline, and applied centralized management to our digital services.
- Introduce critical-time service measures, including the out-of-province SIM card replacement service that allows roaming customers to replace lost or damaged SIM card away from home conveniently, and the 08641 one-click service suspension self-service that allows customers to promptly suspend their services under urgent circumstances.

- We ensured the quality of products of our own brands by strengthening the supervision and control over production quality during the development, approval, manufacturing and sales stages.
- We carried out customer satisfaction surveys and customer net promoter score (NPS) surveys. We conducted 360-degree monitoring of key perception elements of 4G, home broadband and key corporate customers covering both on-line and offline service contact points, and both the front-end and back-end processes, so as to provide important insights to help us improve products and service quality in a targeted manner.
- We set up the centralized service supervision hotline 4001110086 to further improve the centralized handling of customer complaints and follow-ups. We also continuously organized the "Customer Day" events and participated in service quality evaluations organized by industry organizations to gain insight into customer needs and improve the quality of service.

### Progress in 2017

- We released a new version of the *Customer Service Agreement* and the template for *Home Wireline Broadband Business Service Agreement*, which contained enhanced provisions on the protection of customer privacy and communication rights, and specific descriptions of the service standards for home broadband access service.
- We developed a full-channel Internet service platform by consolidating all service channels, including 10086 WeChat, 10086 Weibo, 10086 mobile app, customer service email, intelligent answering system, Alipay, WeChat Mini Program, Fetion, WeChat mobile service portal, etc., forming a funnel shaped service system with the layers of "self-service, self-assistance, peer assistance, automatic service and manual service" that provided online customer service under various circumstances.
- In 2017, our manual service hotline handled 1.68 billion customer calls in total, averaging 140 million calls per month, and the overall 30-second connection rate was higher than 90%. Our Internet service channels such as WeChat, mobile app, etc. handled over 1.02 billion service requests each month. Our customer service undertaken by the intelligent robot named "Yi Wa" covered 31 provinces.
- In 2017, our timely handling rate of customer complaints reached 100%, and the overall customer satisfaction rate reached 79.09%.



#### Intelligent Answering Service System

China Mobile Online Service Co., Ltd. uses intelligent voice navigation to overcome the problems of long waiting time and poor customer experience of traditional manual customer service. When a customer called, if our customer service representatives were busy, the customer would be prompted to enter the voice navigation system to have their request answered. Once entering the system, the customer would only need to voice his/her request to get the information and services required. For simple requests, the system could answer directly; for more complicated requests, the system would automatically guide the customer to the corresponding manual service representative team.

Indicators	2015	2016	2017
<b>Connection scale</b>			
Number of customers (million)	826	849	887
Number of 4G customers (million)	312	535	650
Number of VoLTE customers (million)	—	38.25	200.02
Number of wireline broadband customers (million)	55.03	77.62	112.69
Number of IoT connections (million)	65	103	229
<b>Roaming service</b>			
Number of countries and regions with 4G international roaming service	114	143	172
Number of countries and regions covered by our data roaming services	215	218	229
Annual percentage decrease of international data roaming tariff year on year (%)	58	40	42.2
International data roaming user growth year on year (%)	21	67.6	59.19
<b>Network capacity</b>			
Average 4G network downloading rate on urban roads (Mbps)	over 37	40	42
International transmission bandwidth (G)	2,983	12,942	23,750
<b>Customer Rights Protection</b>			
Number of complaints per million customers	38.5	46.2	35.4
Number of reported spam messages handled (10,000)	145	149	128
Overall customer satisfaction rate (%)	78.72	79.26	79.09

## ► Research, Development and Innovation

### Challenges and Priorities

As we enter the era of Internet of Everything, greater demands are being placed on telecommunications companies to achieve key technological breakthroughs and take ownership of the core capabilities. In the new era, China Mobile keeps strengthening capacity building in R&D and innovation to firmly cement its leadership in 5G development and promote the construction of a well-blended ecosystem where industry partners work together to achieve win-win development.

### Management Approach

- Taking our R&D in 5G technologies and applications up a gear, we initiated and led the formulation of international standards for 5G system framework in 2017. We were deeply involved in the national 5G technology testing to advance industrial maturity.
- We accelerated the R&D and deployment of smart hardware, and facilitated the independent R&D and formulation of standards and technological policies in our key product areas including digital home, cellular Internet of Things, Internet of Vehicles and more.
- We published the notice of *Regulations on China Mobile Incubational Entrepreneurship and Innovation Management* and other documents to offer online entrepreneurship and innovation services, dedicated access by entrepreneurship

and innovation teams to innovation knowledge, idea incubation, technology sharing and R&D collaboration, and a channel for product sharing, demonstration and test run through low-cost, comprehensive and open IT services.

## Progress in 2017

1. We formulated the China Mobile smart hardware R&D plan and pioneered the idea of promoting customized smart hardware. We built the whole-lifecycle R&D capacity and management systems for own-brand smart hardware and set up the smart hardware innovation center.
2. We submitted applications for key national research projects, namely overall 5G testing planning and large-scale 5G testing and demonstration and confirmed the testing cities and scale. We released the *White Paper on China Mobile Capability Openness 2.0*, introducing 53 capabilities and five major solutions in eight primary fields.
3. We greatly enhanced the quality of independent R&D and industrial products relevant to digital home. We organized the formulation of enterprise standards and R&D in respect of converge gateways, fully connected gateways and smart gateways, etc. We took the lead in drawing up the *Industrial Standards for Universal IoT Modules*, greatly facilitating the development and deployment of IoT applications.
4. We invested RMB79.55 million to support entrepreneurship and innovation projects. Cumulatively, our entrepreneurship and innovation platform has hosted 154,000 users. 1,819 teams are currently engaged in innovation and entrepreneurship projects, with 99 teams working at the And-Creation Space.
5. As of 31 December 2017, our communication capacity open platform has served more than 130,000 enterprises, our unified authentication platform processed an average of more than 500 million accreditations per day, and our OneNET IoT platform has converged 6,500 enterprises and has provided capacity building services to 56,000 enterprises.



### Cooperation on “Innovative Second-grade Stroke Prevention and Control System”

Stroke is a common disease that is highly recurrent and prone to causing disability. China Mobile Research Institute joined forces with Duke Kunshan University and Beijing Tiantan Hospital to develop the Innovative Second-grade Stroke Prevention and Control System. With “Internet plus” enabled medical methods and technologies, the system enables medical interventions for strokes and follow-up visits during recovery, and provides training to village doctors, among other functions, thus ensuring coordination among the city, country, town and village levels.

Indicators	2015	2016	2017
Number of patent applications (pieces)	1,319	1,684	2,006
Number of newly registered patents (pieces)	576	684	753
Investment in entrepreneurship support (RMB10,000)	—	400	7,955

## ► Supply Chain Management

### Challenges and Priorities

Under the business context of globalization, the challenges faced by Chinese enterprises in supply chain management are mainly related to cost control, customer service, supply and demand coordination, and visualization and informatization management. As China Mobile works together with our suppliers in the fields of production, services and business processes, it also shares responsibilities and risks as well as opportunities with its suppliers. Therefore, it is an important sustainability measure to identify, monitor and manage the risks and opportunities in its supply chain and actively implement centralized and efficient procurement strategy.

### Management Approach

1. We formulated a standardized procurement process that follows relevant requirements and integrated it into our supply chain management system (SCM) and the electronic procurement and bidding system (ES).
2. We issued the *Notice on Standardizing the e-Procurement and Tendering and Bidding System Applications and Promoting the Traceability and Transparency of Procurement*, aiming at ensuring the “open operation, controllable process, whole process on file and perpetual traceability” of our full procurement process.
3. We formulated the *China Mobile Suppliers Cooperation Guidelines*, explicitly requiring cooperating suppliers to actively fulfill their responsibilities to pay taxes, cover the social security payment of their employees, abide by labor laws and regulations, protect labor rights, ensure workplace health and safety, and support social responsibility and environmental protection, etc. Meanwhile, we require all procurement personnel to sign a *Business Integrity Commitment* to ensure the standardization and fairness of our procurement activities.
4. We incorporated supplier management risks into our comprehensive risk assessment and carried out comprehensive assessment of the economic, environmental and social risks of suppliers in various ways, including site visits, questionnaires, external sustainability agencies, stakeholder information, external databases and public opinion monitoring.
5. We included SA 8000, OHSAS 18001, ISO 14000 and other social responsibility, occupational health and safety and environmental management system certifications into our supplier assessment criteria. Suppliers who failed to pass certain certifications were required to give explanations on their working hours management, remuneration and payment, safety and health management, environmental assurance of products, environmental protection management, etc. We also included a new evaluation criterion of “social contribution”, which measured the charitable donations the supplier made within the previous year.
6. We formulated the *China Mobile Supply Chain Policy on Conflict Minerals* and the *China Mobile Guidelines on Supply Chain Due Diligence Procedures for Conflict Minerals*, requiring suppliers to investigate and report on the use of conflict minerals in their supply chain.

## Progress in 2017

1. We extended the China Mobile Compliance Initiative to cover our business partners and strengthened the supervision and assessment of business partners' integrity and compliance through due diligence, qualification review, performance control, post-evaluation and compliance commitment. We organized special compliance trainings for employees of key areas such as bidding procurement and project construction. Some of our subsidiaries also required their suppliers to sign compliance commitments.
2. We issued the *China Mobile Management Measures on Negative Acts of tier 1 Centralized Suppliers* to promote the development of the business integrity system of suppliers, regulate suppliers' negative behaviors, and specify criteria for and procedures for disciplinary actions.
3. Our case, "Building a Centralized, Efficient and Open Supply Chain Management System", was recognized as the "2017 Outstanding Case of Logistics and Supply Chain Informatization" by China Federation of Logistics and Purchasing; while another case "China Mobile Digital Supply Chain Management System" was named the "Leader in Operational Model Transformation" at the "Digital Transformation Award" by the International Data Corporation (IDC).
4. There were 99,117 registered experts and 178,670 registered suppliers in our electronic procurement and bidding system, and approximately 38,000 transactions were posted on the system.

Indicators	2015	2016	2017
Number of suppliers	6,235	7,243	8,039
Number of first-level suppliers	419	553	571
Percentage of first-level local suppliers <sup>1</sup> (%)	100	100	100
Number of second-level local suppliers	6,105	7,148	7,468
Percentage of second-level local suppliers <sup>2</sup> (%)	47.41	44.29	55.69
Number of assessments on first-level suppliers <sup>3</sup>	2,252	2,393	2,417
Percentage of assessed suppliers in confirmed first-level all suppliers (%)	100	100	100
Number of suppliers disqualified because of quality problems found during on-site assessments	0	0	0
Number of contracted service providers	210	192	156

### Note:

1. Percentage of first-level centralized procurement suppliers means the proportion of domestic suppliers (registered in Mainland China) in all suppliers for the first-level centralized procurement. We did not conduct any international tendering projects in 2017, thus did not have any international supplier.
2. Percentage of second-level centralized procurement suppliers means the proportion of suppliers registered in a province for the second-level procurement of that particular China Mobile provincial subsidiary.
3. Number of assessments on first-level suppliers refers to the number of supplier assessments carried out by our Procurement Shared Service Center, covering both winning and non-winning suppliers. This number does not cover second-level procurements.

## Environmental Performance

### ► Reducing Carbon Emissions

#### Challenges and Priorities

Climate change is a severe challenge facing humanity. By reducing carbon footprint and GHG emissions, companies can contribute positively to achieving the national emissions reduction targets and limiting global climate change. Acting on our energy-conservation-and-emissions-reduction-centered environmental strategy, we commit ourselves to reducing our own energy use as well as engaging industrial stakeholders in environmental protection to cut down on our environmental impact.

#### Management Approach

1. We formulated the *Special Planning about Energy Conservation and Emission* during the 13th Five-Year Plan, and specified the 2020 national emissions reduction targets, setting the goal of reducing the overall energy consumption per unit of information flow by 45% and the overall energy consumption per unit of total telecommunication business volume by 40% by 2020, and strive to use our ICT-based low-carbon solutions to help enable CO<sub>2</sub> emissions reduction to remain 10 times the emissions in the society.
2. We push forward the implementation of environmental management policies and have embedded an energy conservation perspective into the entire business process including feasibility research, design, procurement, construction and maintenance. We run evaluations and inspections on energy conservation and emissions reduction measures and invest in carbon offset projects to optimize our closed-loop management. We help reduce carbon emissions along our supply chain at all stages like R&D, manufacturing, transportation and recycling. We leverage IT-based low-carbon solutions to facilitate the transformation and upgrade of traditional industries and the green development of the society.
3. In 2017, we provided our customers with long-distance and paperless conferencing services via our video and audio office terminals like the Cloud Video and Conference Assistant, helping them cut down on business travels and paper use. We also promoted the use of paperless office systems inside the Company like OA and email to reduce our carbon emissions.

### Progress in 2017

1. We reviewed and disclosed our performance in climate change strategy and management system, risk and opportunity assessment, and carbon emissions management against the global disclosure system CDP from multiple perspectives. We used companies selected for the CDP's A List and DJSI annual list as benchmarks, and made improvements in the management of waste discharge, resource use, the environment and natural resources, and the management of supply chain based on the ESG Reporting Guide.
2. We updated the *China Mobile Provisions on Carbon Emissions Rights Trading* and formulated the *Guideline on China Mobile "Green Action Plan" 2017*, specifying plans for promoting energy conservation and emissions reduction measures as well as detailed requirements regarding the construction of carbon trading management system and promotion of ICT-based low-carbon services.

- In compliance with requirements of the CDP questionnaires, we offered training to our top 25 suppliers by value of procurement to coach them on GHG emissions data statistics and disclosure.
- In 2017, we submitted our carbon emissions report, and concluded third-party verification as well as carbon trade and performing the agreement. We set up the carbon emissions calculation system in accordance with the emissions disclosure requirements. Our relevant practice was included in *China's Policies and Actions for Addressing Climate Change 2017*.
- In 2017, China Mobile Zhejiang Company and Guangdong Company obtained the ISO 14001 environmental management systems certification, and China Mobile Beijing Company obtained the ISO 50001 certification.
- Revenue from low-carbon ICT applications reached 6.24% of the operating revenue in 2017.



### Energy Conservation Awareness Week

During its Energy Conservation Awareness Week in 2017, China Mobile was engaged in a rich variety of energy conservation awareness-building activities via its own business platform and green communication channels like new media, including the promotion of the eight best practices including the "4G Symbol Shut-down" by China Mobile Jiangsu Company, and the selection of the Best Organization of Energy Conservation Awareness Week 2017 and Top 100 China Mobile Employees in Energy Conservation, among others.

Indicators	2015	2016	2017
CO <sub>2</sub> emissions (million tonnes)	15.70	14.38	15.98
Direct GHG emissions (Scope 1) (million tonnes)	0.39	0.35	0.33
Indirect GHG emissions (Scope 2) (million tonnes)	15.31	14.03	15.65
Carbon emission intensity (tCO <sub>2</sub> e/ RMB10,000)	0.235	0.203	0.216
SO <sub>2</sub> emissions (tonnes)	—	95.22	23.59
NO <sub>x</sub> emissions (tonnes)	—	0	0
CH <sub>4</sub> emissions (tonnes)	—	0	0
Carbon emissions from commute (10,000 tonnes)	—	59.87	37.79
Carbon emissions from business travels (10,000 tonnes)	15.87	9.25	29.44

## ► Reducing Environmental Resource Consumption

### Challenges and Priorities

Telecommunications companies are to build massive infrastructure such as 4G networks and data centers to match the rapid growth in network scale and data demand. This will result in continued growth in energy and water consumption and put more pressure on energy

conservation and environmental protection governance. China Mobile makes a continued effort to develop and promote energy efficiency technologies to help reduce energy use and carbon emissions. We regard this as an important strategic step in lowering our operating costs, exploring the new and emerging environmental protection market, and turning challenges into opportunities.

### Management Approach

- We formulated the *Regulations on Management of Machinery Room Energy Efficiency during Construction of Telecommunications Projects* and built the machinery room energy conservation and emissions reduction database to intensify management of machinery room energy consumption.
- We built the energy management system that covers our 31 provincial companies. We hire certified third parties every year to carry out carbon verification and assurance and run full monitoring of the Company's daily energy consumption indicators to improve the accuracy of our energy management and statistics.
- We conducted dedicated energy conservation and emissions reduction inspections, and complemented self-inspection required of each unit with random inspections on the key units. We continued with our evaluation of energy conservation measures after its implementation.
- We promoted energy conservation and emissions reduction through technological innovation. This included basic research on 5G energy efficiency, promoting energy efficiency indicators to be included in key requirements of 5G technology development, which was included in the international standards for the first time. We researched and realized the separation between the cold and hot passageways in machinery rooms to reduce and eliminate regional hotspots. We conducted new energy research, including wind and solar power generation.
- We promoted mature energy conservation technologies across the Company such as 2/3/4G-based smart dormancy and optimization of the multi-network coordination energy efficiency system, air-conditioning system and power source system to reduce electricity consumption.
- We strengthened management of water consumption at the base stations, machinery rooms, administrative premises and business stores, and realized zero growth of water consumption per person at the administrative premises. Measures were taken by companies with favorable conditions to recycle and reuse rain water and reclaimed water to help save water.
- In keeping with the specified requirements, we retired 7,000 pieces of old and worn-out equipment in use across our networks in a timely fashion. This stood to help us reduce annual electricity use by 100 million kWh and the floor area of machinery rooms by 45,000 square meters, a boost to the Company's energy conservation and efficiency augmentation.

### Progress in 2017

In 2017, we launched independent R&D of IoT and 5G and promoted mature energy efficiency technologies. We updated the 4G energy conservation standards and realized their application in procurement. By doing so, we cut the single-carrier frequency power consumption of newly added 4G networks by 61%, which helped reduce our annual electricity use by 1.2 billion kWh alone. Our overall energy consumption per unit of total telecommunications business was 21 kilograms of standard coal per RMB10,000, decreasing by 29% compared with 2016.



### Green Data Center

China Mobile pioneered the liquid/gas dual-channel forward heat dissipation technology, which could significantly bring down the data center PUE to below 1.2 and cut energy use by over 45%. When fully implemented, this technology would help save the annual electricity use at our domestic data centers by over 50 billion kWh, and facilitate green development of the telecommunications sector.

### Multi-network Coordination Energy Conservation System

The China Mobile multi-network coordination energy conservation system has been deployed for use in about 300,000 communities in Guangxi, Jiangxi, Shanghai and other provinces and cities. The system allows the networks to shut down during non-peak hours, thus maximizing the reduction in network resource consumption to save about 12 million kWh in electricity use annually.

### 139 Electronic Invoicing

China Mobile 139 Mail collaborated with a major tax-control services company in China to introduce a total electronic invoicing (e-invoicing) solution in September 2017. By joining forces, the two companies would enable a one-stop e-invoicing service that provides nationwide consumers with the issuance, filing, online reimbursement and title management of e-invoices. The service would cover a rich variety of areas such as e-commerce, catering, business traveling and retailing.

### Environmentally-friendly Mixed-case Shipping Pallet Project

China Mobile worked with Apple on the environmentally-friendly mixed-case shipping pallet project in 2017 to cut down on the use of wooden pallets. The mixed-case pallet technology was estimated to reduce the number of wooden shipping pallets used at the terminal trunk line of Apple by 400 per year, 25% less than the one before system implementation.

Indicators	2015	2016	2017
<b>Energy Consumption</b>			
Total electricity consumption (100 GWhs)	200.9	197.1	223.3
Natural gas consumption (million m <sup>3</sup> )	8.9	9.1	7.9
LPG consumption (100 tonnes)	3.3	3.7	3.1
Coal gas consumption (million m <sup>3</sup> )	0.5	0.2	0.1
Coal consumption (10,000 tonnes)	1.2	0.5	0.1
Total gasoline consumption (million liters)	127.8	126.9	121.5
Total diesel fuel consumption (million liters)	20.6	17.6	19.4
Purchased heating costs (RMB million)	147.7	150.4	160.9
<b>Energy Savings</b>			
Total electricity saving in this year (100 GWhs)	3.0	3.8	21.4
Equivalent costs saving by saving electricity in this year (RMB100 million)	3.9	5.2	28.9
Equivalent GHG emission reduction by saving electricity in this year (10,000 tonnes)	22.7	26.4	148.5
<b>Water Use</b>			
Total amount of water consumption (million tonnes)	37.57	41.25	42.24
Average amount of water consumption per employee (tonnes)	86	90	91
<b>Green Office</b>			
Cross-provinces video conferences usage at headquarters (times)	855	800	882
<b>Green Operations</b>			
Online business sales of electronic channels (RMB100 million)	3,209	3,934	4,648
Reduction in overall energy consumption per unit of information flow (%)	17.5	36	40
Investment in "Green Action Plan" (RMB100 million)	1.8	1.9	1.4

## ► Waste Management

### Challenges and Priorities

As digital economy sustains rapid development and takes the world by storm, electronic waste (e-waste) is becoming an environmental issue challenging the global ICT sector. China Mobile keeps reinforcing specialized disposal and recycling management of e-waste and other kinds of waste, and rallies value chain partners to be environmentally engaged to promote reduced and recycled use of resources and contribute to the development of an ecological civilization.

### Management Approach

1. We hire certified third parties to handle and recycle the waste produced during the daily operations at our machinery rooms, base stations and data centers.

- We increase the use of green packaging and promote waste recycling and reuse. We urge our suppliers to fulfill the centralized procurement commitment to enhance the percentage of green packaging for newly purchased equipment.
- We continue to conduct the Green Box Environmental Protection Campaign by combining it with our "And Trade-In" program. We help raise public awareness of the impact of e-waste on the environment and encourage citizens to participate in environmental protection through public recycling of discarded handsets, accessories and batteries. We ran the Green Box volunteer campaign on 1,926 occasions in 2017, recycling 37,255 pieces of electronic equipment in total.

### Progress in 2017

The percentage of newly purchased equipment using green packaging reached 67% in 2017, equivalent to 140,000 m<sup>3</sup> of wood saved.

Indicators	2015	2016	2017
<b>Weight of Waste Recycled by Qualified Third Parties (tonnes)</b>			
Network Waste	26,637	21,046	32,531
Acid batteries	19,195	13,997	20,219
Telecommunications equipment	4,598	3,366	6,869
Cables	907	1,088	2,136
Other waste	1,937	2,595	3,307
Office Waste	1,323	1,512	2,367
Electronic equipment	937	1,234	1,895
Other waste	386	278	472
Devices	44	184	137
<b>Total</b>	<b>28,004</b>	<b>22,742</b>	<b>35,035</b>
<b>Value of Waste Recycled by Qualified Third Parties (RMB10,000)</b>			
Network Waste	13,546	10,574	21,255
Acid batteries	10,392	7,942	13,220
Telecommunications equipment	1,914	1,513	3,727
Cables	578	386	3,313
Other waste	662	733	995
Office Waste	551	712	892
Electronic equipment	473	612	798
Other waste	78	100	94
Devices	142	140	122
<b>Total</b>	<b>14,239</b>	<b>11,426</b>	<b>22,269</b>

Indicators	2016	2017
Hazardous waste (tonnes)	22,742	35,035
Non-hazardous waste (tonnes)	0	0
Waste emission intensity (kg/RMB10,000)	0.32	0.47
Total usage of material producing terminal devices (tonnes)	3,171	8,847

## ► Electromagnetic Radiation Management

### Challenges and Priorities

With the rapid development of mobile telecommunications, the number of base stations keeps growing. Disputes regarding electromagnetic radiation that result from ineffective communication are prone to expose telecommunications companies to legal or financial risks. China Mobile constantly strengthens supervision of electromagnetic radiation, and firmly aligns its electromagnetic radiation levels with the national requirements. We also actively seek communication with communities near where our base stations are located to help eliminate misunderstanding.

### Management Approach

- We formulated the *Regulations on China Mobile Electromagnetic Radiation Management* and have a relatively well-established electromagnetic radiation management and operations system in place to guide the electromagnetic radiation environmentally friendly management work of our base stations.
- We combine random inspections by experts with daily monitoring by provincial companies to ensure continuous monitoring of our base stations and keeping electromagnetic radiation within the regulatory limits.
- We carry out education campaigns to dispel myths and make the public well-informed of the impact of the electromagnetic radiation of base stations. We have vans dedicated to such education campaigns and produced educational programs with mainstream TV stations on electromagnetic radiation of the base station. We compiled a series of educational materials including *Literature Review on International Telecommunications Electromagnetic Radiation and Health, and Electromagnetic Radiation Risk Communication*, and had papers published in newspapers and online, to eliminate the public's misunderstandings about electromagnetic radiation.

### Progress in 2017

Our electromagnetic radiation training and education vans have traveled for 60,000 kilometers since they were first used in 2015. We have organized 304 education campaigns in 128 counties throughout 65 cities and been interviewed by various TV stations and media on 129 occasions.



# Social Performance

## ► Fair Employment and Non-discrimination

### Challenges and Priorities

It is a basic code of conduct for a business to ensure that its hiring and employment practices are fully in compliance with the laws and regulations of where it operates. Upholding the principles of diversity and non-discrimination, China Mobile supports equal employment opportunities, actively protects the rights and interests of its employees, and ensures the compliance of the Company.

### Management Approach

1. We strictly abide by the *Labor Law of China* and the *China Mobile Management Approach on Recruitment* and ensure that our hiring process is open, fair and transparent. We forbid the mentioning of discriminating content, such as height, appearance, ethnicity and gender, in job descriptions except for certain positions with specific requirements. We strictly forbid the use of child labor and forced labor.
2. We strictly comply with labor laws and regulations where we operate and provide employees with competitive remuneration as well as insurance and welfare package. Employees' wages are all higher than the minimum wage levels of the respective locations.

### Progress in 2017

1. To create a fair, equal and open talent selection environment, we adjusted our campus recruiting practice for the 2018 recruiting season, requiring all recruiting parties within the Company to conduct campus recruiting at the same time and use only one unified written exam.
2. To optimize a normal employee mobility mechanism, we revised our *Labor Management Regulations* and further standardized our labor practice on job classification, employment category, number of positions, employee composition, recruitment, labor contract, working hours, vacation system, labor outsourcing management and employee exit, etc.
3. We revised the *Management Methods on the Cooperation with Labor Dispatch Units* to further standardize the management of labor dispatch agencies, protect the lawful rights and interests of dispatched personnel, and ensure harmonious and stable employment relationship.
4. In 2017, 100% of the female employees at our headquarters returned to work after maternity leave.
5. We won the "Best Campus Recruiter Award" at the "2017 China Talent Selection Award" event.
6. In 2017, we created a total of over 2.6 million employment opportunities.

Indicators	2015	2016	2017
Total number of employees (person)	438,645	460,647	464,656
<b>Employee Composition</b>			
Percentage of employees under 30 years old (%)	39.64	35.15	29.62
Percentage of employees between 30 and 50 years old (%)	55.85	61.25	65.95
Percentage of employees over 50 years old (%)	4.51	3.60	4.43
Percentage of female employees (%)	54.79	55.54	55.11
Percentage of female employees at senior management level (%)	14.15	18.00	13.18
Percentage of ethnic minority employees (%)	6.80	7.16	6.83
<b>Employee Turnover</b>			
Total number of employees newly hired in the year (person)	28,512	16,842	27,011
Number of female employees newly hired (person)	15,452	9,040	14,194
Number of male employees newly hired (person)	13,060	7,802	12,817
Total number of employees resigned in the year (person)	10,711	10,404	14,831
Number of resigned female employees (person)	5,088	5,950	8,242
Number of resigned male employees (person)	5,623	4,454	6,589
Total number of employees dismissed in the year (person)	510	636	925
Number of female employees dismissed (person)	199	347	589
Number of male employees dismissed (person)	311	289	336
Percentage of employees resigned or dismissed among employees under 30 years of age (%)	—	1.94	2.24
Percentage of employees resigned or dismissed among employees between 30 to 50 years of age (%)	—	0.95	1.59
Percentage of employees resigned or dismissed among employees over 50 years of age (%)	—	0.02	0.21

Note: The indicators of Employee Compositions and Employee Turnover are measured based on regular employees.

## ► Human Resources Development

### Challenges and Priorities

The loss of key employees and the lack of capability to adapt to the business transformation among employees are common challenges for state-owned communication enterprises. China Mobile strives to maintain our competitive edge in talents and further improve our competence for sustainable development by continuously improving its employee incentive mechanism, streamlining employee career development channels and fostering core competences in new technology and new businesses.

### Management Approach

1. We set up a multi-channel career development mechanism scheme, which includes the category of job function, career development levels and job system, and link up with salary system, improve human resources management system, promote job matching, retain core talents, and improve employee's enthusiasm and initiative.
2. Revised and issued *Training Management*, to further establish the training principles, management system and requirements, define training object, contents and methods, specify training implementation and evaluation to ensure more institutionalized, standardized and meticulous training management of the Company.
3. Continue to carry out the annual training project evaluation, formulate the project evaluation report based on the whole process training management and assessment system, and provide the training needs analysis and project implementation suggestions to departments to constantly improve the training of each business unit.
4. Continue to organize "The Most Beautiful Mobiler" activities, select outstanding employees who can represent China Mobile, communications industry and central enterprises, expand the influence of the advanced personas, and enhance the incentive effect of employees.

### Progress in 2017

1. We constructed an incentive system covering various position levels and career paths, including: adjusted the salary structure for senior positions to increase the weight of variable income and allow greater differences in income; implemented quantitative performance-based salary structure for front-line employees, creating greater incentive for "more work more pay" by highlighting the linkage between income and performance; and increase the share of income for core employees to strengthen the retention of core talent.
2. We optimized the evaluation and career development mechanism for professional technology staff, including: established an H-shaped career development channel for management and professional technology staff, and made improvements to the qualification and capability system for technology staff, such as the development of expert appraisal mechanism, evaluation mechanism and the dynamic optimization of expert database.

3. We implement our annual training plan, including: organized various trainings for management staff, such as executives seminar, leadership training for new deputy executive staff, training for young managers, management training for headquarters department managers; organized dedicated trainings for key professional staff, such as the advanced training in network technology, IT training for business support operation and maintenance specialists, training camp for headquarters customer managers, and certified trainings such as PMP training and ACCA training; and set up a special channel at our Online University on the ten major projects of the "Big Connectivity" strategy. In 2017, these were 405,000 users in our Online University system, of which 291,000 users studied over their mobile phones, and spent 50 hours per user on average.
4. We organized 402 online certification exams for network maintenance personnel and a total of 128,000 people participated.
5. The professional composition and education level of our employee continued to optimize, and as of 31 December 2017, the percentage of employees with college or higher degrees increased by 6% on year-on-year basis.
6. We organized the second annual selection of "The Most Beautiful Mobiler" for outstanding individuals, teams and grass-roots groups.
7. China Mobile University was awarded the "China Talent Development Award for Outstanding Enterprise University" by China Human Resources Development and Research Association, and the "Best Enterprise University Award" in the Top Chinese Enterprise University Rankings, and the "China Talent Development Award for Outstanding Enterprise University".



#### "New Momentum Program"

To better support its transformation, the Company initiated the New Momentum Program to help key technology talents develop needed capabilities. The Program leveraged internal and external resources, and offered a variety of trainings for a total of 54,000 people in 2017, including those on new technology and intermediate and high-level network technology, and those on IT technology that supports business.

#### Developing Trainings on New Technologies and New Businesses

In 2017, we strengthened the development of training resources on new technologies and new businesses and designed a total of 226 courses in this regard. We launched learning programs on "Intelligent IoT for Future", "Words of Tech", "Network Maintenance and Optimization", "Unified Communication" etc. We constantly improved the business line course resource system, and extended the reach of education by means of online learning features and live broadcast of lectures, to help our technical talents acquire needed capabilities during the phase of transformation.

Indicators	2015	2016	2017
<b>Human Resources Composition</b>			
Percentage of technology personnel (%)	—	—	23.34
Percentage of marketing personnel (%)	—	—	56.56
Percentage of managerial personnel (%)	—	—	7.25
Percentage of administrative personnel (%)	—	—	10.09
Other personnel (%)	—	—	2.76
<b>Human Resources Development</b>			
Training expense per employee (RMB)	1,944	1,646	1,717
Total number of employees trained (10,000 person-times)	116.9	154.9	183.9
Number of senior management trained (person-times)	741	867	986
Number of middle-level management trained (person-times)	12,139	15,546	28,669
Number of general employees trained (10,000 person-times)	115.6	153.2	181.0
Average training time per employee (hours)	57.6	64.4	88.5
Average training time per senior management (hours)	92.0	99.8	106.9
Average training time per middle-level management (hours)	66.4	79.8	88.1
Average training time per general employee (hours)	57.3	64.2	88.6
Number of Online University users (10,000 persons)	33	39.5	40.5
Average Online University study hours per user (hours)	31	38.2	50.0
Number of Online University users via mobile phone (10,000 persons)	14	27.8	29.1

## ► Workplace Health and Safety

### Challenges and Priorities

To ensure workplace health and safety for employees is not only the foundation for smooth operation of the Company, but also an important indicator of how we protect the rights and interests of employees. China Mobile attaches great importance to raising the employees' awareness of workplace safety, promoting work-life balance, supporting employees in need, protecting the physical and mental health of employees, and enhancing the sense of belonging and cohesion of its employees.

### Management Approach

1. We develop and improve safety management policies, carry out in-depth inspections and remediation of safety hazards, and ensure workplace safety with awareness raising activities, such as Safety Month, Fire Prevention Month, etc.

2. We attach great importance to the mental and physical health of our employees by continuously launching Employee Assistance Program (EAP) and the "Happiness 1+1" employee caring activities, provide physical examination for employees annually to help them better manage their health; and set up a special fund at provincial subsidiaries to support employees who suffered from major diseases.
3. We attach great importance to preserve the rights of female employees to give birth, grant pregnant employees maternity leave, and provide female employees with a work environment meeting their special demand such as nurseries or the "Mommy's Room".

### Progress in 2017

1. In 2017, we issued several management policies such as the *China Mobile Safety Management Regulations for Sales Outlets* and the *China Mobile 2017 Workplace and Security Priorities*. We also applied information technology to improve our safety supervision and management capabilities, including the development of a safety inspection management platform.
2. We organized a series of events during the Safety Month and Fire Prevention Month to promote safety awareness and enhance safety capabilities among our employees, such as trainings for safety management supervisors, an essay competition with the theme of "Responsibility Creates Safety", and safety knowledge competition among our employees.
3. In 2017, our Employee Assistance Program (EAP) covered 31 provincial subsidiaries and 20 professional companies and organizations directly affiliated with us, covering a total of over 320,000 employees. Cumulatively, we have trained 3,062 EAP specialists and set up 114 facilities to help deal with employees' pressure such as relaxing lounge or counselling rooms, etc.
4. In 2017, a total of 318,000 employees were covered by the "Happiness 1+1" program that cared for the physical and mental health of our employees.



### Enhancing EAP Capabilities

From 2007 to 2017, China Mobile organized 7 EAP experience sharing conferences, 4 EAP forums and 9 EAP trainings, and trained a team of in-house EAP specialists. With years of experience, we have developed many outstanding cases and best practices that were promoted across the Company, such as the "Happy Sales Outlet" program of Zhejiang Company, the "Happy Work Approach" of Anhui Company and the "Melting Heart" program of Jiangxi Company.



## “Happiness 1+1” Caring for Employee Health

The “Happiness 1+1” program is a long-term employee care program that focuses on promoting the physical and mental health of our employees. In 2017, we continued our support to the program and organized a series of employee activities to promote a positive workplace and healthy living. Our headquarters worked together with the MIGU Company and jointly launched a series of “MIGU fun” activities including reading, running and music. We also organized the second employee group talent show and badminton competition, organized employees to participate in industry-wide bridge, light volleyball and badminton tournaments, organized employee calligraphy, painting and writing interest groups, and hosted the “China Mobile And You” employee mobile phone photography exhibition, etc.

## “Five Smalls” Warming Hearts of Employees

We continuously promoted the construction of the “Five Small” projects (small canteens, small lounge, small bath, small activity room and small library) in order to improve the working and living conditions of grassroots employees. In 2017, we invested over RMB600 million in upgrading the “Employee Home” facilities of grassroots operating units and extended the program's coverage to cover township sales units, the lowest level of operating units. 28,000 facilities were newly built and upgraded, benefiting 350,000 employees in total.

## Targeted Employee Care System

China Mobile has established a targeted employee care system, providing special support for employees whose children suffered from congenital heart disease, including remote diagnosis services. We also provided condolence payments to employees who needed urgent help, such as employees in disaster areas, which helped improve the solidarity of our organization.

Indicators	2015	2016	2017
Participation rate of employee health checkup (%)	94	97	97
Number of safety emergency drills	1,156	1,214	1,250
Participation rate of safety emergency drills (%)	86	86	86
Accident fatalities per 1,000 employees	—	0.0065	0.004

## ► Respect and Protect Human Rights

### Challenges and Priorities

Respecting and protecting human rights is an important principle and choice of values for any responsible business. China Mobile con-

sistently practices its core value of “Responsibility Makes Perfection”, respects and protects human rights in business practices, and actively safeguards the interests of vulnerable groups.

## Management Approach

1. We became a member of the UN Global Compact in 2007. Since then, we have supported and actively implemented the UNGC Ten Principles, respected and protected internationally recognized human rights, and forbid any involvement in any act of ignoring and violating human rights.
2. We issued the *China Mobile Guiding Opinions on Business Transparency*, promoted the process of democratic management at the grassroots level, and actively upheld employees' rights to participate in corporate affairs and express their opinions. The Company continued to implement the employee representative conference system, formed a closed-loop management of the handling and follow-up of propositions, and actively protected the lawful rights and interests of employees. In 2017, 100% of our headquarters, provincial subsidiaries and professional companies signed collective bargaining contracts with employees.
3. We set up a smooth grievance mechanism for employees, who can make inquiries and suggestions to the Company through channels such as the CEO Mailbox, Letters and the Petition Office and the labor union. The Company will respond to and deal with the received opinions and suggestions in a timely manner.
4. We safeguard human rights among suppliers at all levels. We revised the *Supplier Management Measures*, requiring the certifying of the labor rights of suppliers based on the supplier certification template. We also included labor practice inspection into the review process for tier-one suppliers to urge better protection of human rights.
5. We continue to improve the closed-loop management system for customer information protection to improve customer information security and actively protect the lawful rights and interests of customers.
6. We support the development of poverty-stricken areas with poverty alleviation programs and efforts to bridge the digital divide, helping people who live in remote areas improve their living conditions and obtain access to education and decent living.

## Progress in 2017

1. We strengthened the cooperation with governments at all levels to promote the construction of information platforms such as e-commerce, remote health care, education and finance and provided higher tariff discounts for mobile and broadband services for poverty-stricken areas to further lower the threshold for information services.
2. In 2017, we carried out the “Telecommunication Universal Service Project” and provided broadband connection to more than 20,000 administrative villages.
3. Since 2014, six provincial subsidiaries, Yunnan, Chongqing, Guizhou, Neimenggu, Jiangxi and Gansu, have been participating in the “Rural Broadband Demonstration Project”. By the end of 2017, we have brought optical fiber broadband connection to 9,499 administrative villages cumulatively, of which 1,826 were connected in 2017, further increasing the percentage of villages using China Mobile's broadband Internet.

4. To protect the rights of disadvantaged groups to use information services, we continued to organized outreach and service events in rural areas and residential neighborhoods to better serve rural residents as well as disadvantaged groups such as the elderly and the handicapped by upgrading their mobile apps and repairing and cleaning their mobile phones.

Indicators	2015	2016	2017
Number of sales channels in township-level areas (10,000)	59.5	55	46.2
Number of Rural Information Service users (10,000)	6,349	6,487	7,480
Cumulative number of rural information messages sent via Rural Information Network (100 million)	532.4	656.1	595.7
Union participation rate of regular employees (%)	100	100	100
Union participation rate of contracted employees (%)	98	98	98

## ► Public Welfare

### Challenges and Priorities

The eradication of poverty is a major global challenge. It is an important responsibility of China Mobile to assist with targeted poverty alleviation efforts in China and implement the UN Sustainable Development Goals by leveraging our expertise in connectivity and our corporate resources to empower the poor with development capabilities and provide them with better access to public resources such as education and medical care.

### Management Approach

1. We formulated the *China Mobile 2016-2018 Plan for Targeted Support (Poverty Alleviation)* and cooperated with our parent company to carry out targeted poverty alleviation work in eight counties in Qinghai, Xizang, Xinjiang, Heilongjiang and Hainan, such as supporting infrastructure construction, promoting industry development and supporting cultural and education development in impoverished areas.
2. China Mobile Charity Foundation continued to carry out our two well-known charity programs: the "Blue Dreams" program that aims at providing primary and middle schools in middle and western rural areas with educational resources and improving their quality of teaching, and the "Heart Caring" Campaign that aims at enabling impoverished children with congenital heart disease to grow up healthily.
3. We developed a targeted poverty alleviation platform to assist government and other partners to improve the efficiency of targeted poverty alleviation efforts.
4. Based on technologies such as big data, cloud computing, etc., we developed distant education and medical care products, and provided technical and platform support for impoverished areas and disadvantaged groups to obtain access to related resources.

### Progress in 2017

1. We continued to increase our support for areas in extreme poverty, and actively cooperated with local governments to support the construction of local communications, education and

transportation infrastructure and the launch of other poverty alleviation programs such as rural e-commerce and intelligent tourism.

2. Our targeted poverty alleviation platform has been applied in 45 cities and counties in 6 provinces and trial used in 11 other provinces, serving 6.44 million impoverished people and 330,000 poverty alleviation cadres.
3. Our China Mobile "Blue Dream" Educational Aid Plan trained 11,296 rural primary and secondary school principals, and donated 270 multimedia classrooms, together with our "And-Education" products, to primary and middle schools in poor areas in Sichuan, Jiangxi and Shaanxi provinces.
4. Our China Mobile "Heart Caring" Campaign provided free congenital heart disease screening for 6,071 children from families in poverty and sponsored the surgery treatment for 865 of the children who were diagnosed with the disease.
5. Our parent company invested RMB44.15 million in targeted aid and poverty alleviation operations.
6. Our MIGU Running platform has attracted 42 charity funds, 3 million charity supporters, 1,500 participating businesses and 30,000 running clubs.
7. Currently, the China Mobile "And-Education" cloud platform serves 90 million users and the "And-Health" product serves 106 million users, playing a significant role in enabling vulnerable groups in poverty-stricken areas to obtain equal education opportunities and medical resources.



### "Jiangxi Selected", Promoting Local Agricultural Products

"Jiangxi Selected (*Gan Po Youpin*)" is an e-commerce platform for specialty agricultural products set up under "And-Trust", the core Internet product, introduced by China Mobile Jiangxi Company. We constructed a complete industrial chain from production to sales and logistics for the "Jiangxi Selected" platform, offering users full-process, high-quality Internet e-commerce services that cover both online and offline operations. As the largest e-commerce platform for high quality agricultural product and tourism services in Jiangxi province, the "Jiangxi Selected" platform has already attracted 500 local businesses, making concrete contribution to the development of the local economy.

### Targeted Poverty Alleviation Big Data Management Cloud Platform

China Mobile Guangdong Company, entrusted by Guangdong Poverty Alleviation Office, developed the Targeted Poverty Alleviation Big Data Management Cloud Platform and the poverty alleviation client-side app, providing a powerful and convenient collaboration tool for poverty alleviation workers stationed in villages. Meanwhile, the company integrated the platform with its e-commerce platform "Guangdong Selected (*Lingnan Youpin*)", aiming to raise the income of local farmers by supporting the development of specialty e-commerce models such as "One County, One Trade" and "One Village, One Product".



### The “And-Seeding” Rural Education Support Program

In 2017, our employee volunteers actively participated in the “And-Seeding” rural education support program. Under the theme of “The Book-crossing Journey”, the volunteers brought over 1,000 books, 120 gift sets and several desks and chairs donated by our employees to Miaoqian Primary School in Gaoping Town, Liuyang City, Hunan Province and carried out seven days of education support program. They taught the class “The Magical World in A Class” and visited the families of students with the donated gifts. They also paired up with students from impoverished families to give them long-term one-on-one support to broaden their horizons and help them grow.

Indicators	2015	2016	2017
Total number of registered employee volunteers (10,000 persons)	11.9	13.1	11.1
Total amount of employee volunteer services (10,000 hours)	48.3	50.2	56.8
Cumulative number of impoverished children to receive free congenital heart disease screenings	27,717	33,417	39,488
Cumulative number of impoverished children diagnosed with congenital heart disease and assisted and treated	2,744	3,633	4,498
Cumulative number of China Mobile Libraries built	2,310	2,310	2,310
Cumulative number of multimedia classrooms built	1,260	1,760	2,030
Cumulative number of principals of rural primary and secondary schools trained	80,981	92,532	103,828
Cumulative donation made by China Mobile Charity Foundation (RMB10,000)	19,565	23,395	27,225

### ➤ Overseas CSR

#### Challenges and Priorities

Faced with the integration of and competition for resources brought about by globalization, how businesses fulfill their corporate social responsibilities abroad has a profound impact on their business development and expansion. China Mobile examined the social responsibility risks regarding our overseas operations, promoted staff localization, and actively engaged local communities to strive for win-win development. We also took the initiative to support the development of network infrastructure in “Belt and Road” countries and regions, laying the foundation for information highways for the increasing number of Chinese businesses that expand overseas.

### Management Approach

1. China Mobile International Limited proactively promoted the construction of key telecommunication network infrastructure projects that connect the world, such as the cross-border optical fiber cable that connects China with Myanmar, Nepal, Pakistan and Kyrgyzstan. We also built 29 information stations (POPs, Internet service access points) in the “Belt and Road” countries and regions to facilitate international communications and information exchange.
2. During the construction of our data centers, we attached great importance to our environmental impact. We applied several leading environmental design initiatives at the Global Network Center (GNC) of China Mobile Hong Kong Co., Ltd. located in Tseung Kwan O, Hong Kong, which has received the LEED Gold certification and the BEAM Plus certification.
3. China Mobile Hong Kong Co., Ltd. strengthened employee volunteer management and led employee volunteers to do community service and make charitable donations.
4. During each stage of making overseas investments, such as making investment plans, screening investment opportunities, implementing investment projects and making investment decisions, we conducted an in-depth analysis of the macro-environment and industry trends of the investment location and a comprehensive assessment of the economic, social and environmental impacts of the investment projects as an important basis for making investment decisions.

### Progress in 2017

1. We cooperated with our parent company and built 3,500 4G base stations in Pakistan, achieving full 4G coverage in cities with a population of 3.1 million or above in Pakistan.
2. The percentage of local employees in China Mobile Hong Kong Co., Ltd. was 89.4% for all employees and 75% for management personnel.
3. In Hong Kong, we were awarded the 2017/18 “Partner Employer Award”, the “Best Employer Award 2017” by Job Market, and the 2017 Big Data SMART Award.

# Independent Assurance Report



## To the Board of China Mobile Limited:

### I. Scope of Our Engagement

The 2017 Sustainability Report (the "Sustainability Report") of China Mobile Limited (the "Company") has been prepared by the company. Management of the company (the "Management") is responsible for the collection and presentation of information within the GRI Sustainability Reporting Standards issued by the Global Sustainability Standards Board (GSSB), and for maintaining adequate records and internal controls that are designed to support the corporate social responsibility reporting process.

Our responsibility is to carry out limited assurance procedures in accordance with International Standard on Assurance Engagements 3000 ("ISAE3000"): "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" issued by the International Federation of Accountants and issue the assurance statement for the year ended 31 December 2017 in accordance with the Management's instructions.

Our work was limited to these stated above and our report is made solely to you, as a body, and for no other purpose. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance any such third party may place on the Sustainability Report is entirely as its own risk.

### II. Work Performed

Our review has been planned and performed in accordance with ISAE3000. In order to form our conclusions, we carried out the following procedures:

According to the Management's instructions, we performed limited assurance procedures in:

- China Mobile Limited Head Office
- China Mobile Shanxi Company Limited
- China Mobile Shanghai Company Limited
- China Mobile Yunnan Company Limited

We did not perform limited assurance procedures on other sites.

The limited assurance procedures were performed over the following key performance indicators in the Sustainability Report for the year ended 31 December 2017:

#### Economic indicators

- Number of first-level suppliers
- Number of second-level suppliers
- Percentage of first-level local suppliers
- Percentage of second-level local suppliers
- Number of assessments on first-level suppliers
- Number of administrative villages with broadband service newly launched in the "Telecommunication Universal Service Project"
- Number of Rural Information Service customers
- Number of sales channels in township-level areas

#### Environmental indicators

- Total electricity consumption
- Natural gas consumption
- LPG consumption
- Coal gas consumption
- Coal consumption
- Gasoline consumption
- Diesel fuel consumption
- CO<sub>2</sub> emissions
- Carbon emission from business travel

- Carbon emission from commute
- Number of video conferences usage at group level

#### Social indicators

- Number of spam messages report handled
- Number of emergency support
- Number of emergency support vehicles deployed
- Number of emergency support equipment installed
- Number of person-times involved in emergency support
- Number of principals of rural primary and secondary schools trained newly added
- Number of assisted children in poverty who suffered from congenital heart disease newly added
- Number of person-times trained
- Percentage of female employees
- Ethnic minorities as a percentage of total employees
- Total number of newly hired employees
- Total number of resigned employees
- Total number of dismissed employees
- Number of Anti-Corruption Education programme organized
- Attendance of anti-corruption education and trainings

The limited assurance procedures we carried out are following:

- Interviewing the company's management and staffs responsible for the selected key performance information
- Performing analytical review procedures
- Performing sample inspection on the selected key performance information
- Performing recalculation procedures on the selected key performance information
- Other procedures we considered necessary

### III. Limitations of Our Scope

Our scope of work did not include:

- Assessing the accuracy or fairness of information (including financial information) other than the selected key performance information.
- Reviewing the forward-looking statements made by the Management.
- Reviewing and consequently providing assurance on historical data.

### IV. Level of Assurance

Our evidence gathering procedures have been designed to obtain a limited level of assurance (as set out in ISAE3000) on which to base our conclusion. The procedures conducted do not provide all the evidence that would be required in a reasonable assurance engagement and, accordingly, we do not express a reasonable assurance opinion or an audit opinion. While we considered the effectiveness of the Management's internal controls when determining the nature and extent of our procedures, our review was not designed to provide assurance on internal controls.

### V. Our Conclusions

Subject to the limitations of scope and based on the procedures specified above for this limited assurance engagement, we provided the following conclusions:

Nothing has come to our attention that causes us to believe that the selected indicators were not presented fairly in all material respects in the 2017 Sustainability Report of China Mobile Limited.

### VI. Our Independence

We are in compliance with the Ernst & Young Global Independence Policy which was designed to comply with the requirements of the IFAC Codes of Ethics for Professional Accountants (the IFAC Code). We believe that there were no events or prohibited services provided which could impair our independence.

### VII. Our Assurance Team

Our assurance team has been drawn from our sustainability assurance service network, which undertakes similar engagements to this with a number of domestic or international businesses. Our assurance team has met the requirements of competence and work experience of this engagement.

*Ernst & Young Hua Ming LLP*

**Ernst & Young Hua Ming LLP**

Beijing, PRC

26 March, 2018



# About this Report

This report is the 11th Sustainability Report of China Mobile Limited, disclosing relevant information about our economic, social and environmental sustainability. Unless otherwise stated, the time span of this report is from 1 January 2017 to 31 December 2017.

## Reporting Form

This report is issued both in Chinese and English, including printing edition and online edition. (The browse and download link is [www.chinamobiletd.com](http://www.chinamobiletd.com))

## Reporting Standards

This report is compiled with great efforts to comply with relevant standards about information disclosure of sustainability which are feasible in the industry. This report has its foothold on the industry background and highlights corporate characteristics.

The standards as key references when this report was compiled include:

- The GRI Sustainability Reporting Standards issued by GSSB;
- Ten Principles of United Nations Global Compact;
- ISO Guidance on Social Responsibilities (ISO 26000);
- HKEx Guide on Environmental, Social and Governance Reporting;
- UN 2030 Agenda for Sustainable Development;
- Chinese CSR Report Preparation Guide (CASS-CSR 4.0) issued by the Chinese Academy of Social Sciences;

China Mobile had, throughout the year ended 31 December 2017, complied with the “comply or explain” provisions set forth in the HKEx Guide on Environmental, Social and Governance Reporting.

## Reporting Content and Boundary

In accordance with the principles of “stakeholder engagement, sustainability context, materiality and completeness”, China Mobile determined materiality issues and their boundary through materiality analysis (See Pages 37-38 in this report for the process and result of materiality analysis.)

## Reporting Scope

Unless otherwise stated, all the cases and data in this report were collected from China Mobile Ltd. and our subsidiaries (See Page 4 in this report for detailed information about our subsidiaries.)

## Data and Information Disclosure

The main channels for the collection of data and information in 2017 Report include:

- Relevant data collection systems and relevant statistical statements inside our company;
- Cases about corporate social responsibility practice submitted by provincial subsidiaries every quarter;
- Appraisal and selection of 2017 Best CSR Practices;
- Questionnaires developed to collect qualitative and quantitative information based on the report framework.

## Currency

Unless otherwise specified, all monetary figures shown in this report are expressed in RMB (yuan).

## Report Assurance

In 2017, China Mobile hired Ernst & Young (special general partnership) to provide independent third-party assurance report (see Pages 56-57). The company's 2017 Annual Report, regarding the details of audited financial statements and other financial performance and operating performance as of 31 December 2017, can be downloaded on the company's website [www.chinamobiletd.com](http://www.chinamobiletd.com).

## Report Pictures

In 2017, the Company organized the “China Mobile And You” employee mobile phone photography exhibition, and several outstanding exhibits are included in this report:

- Page 7, Happy Hopper by Jirimutu of China Mobile Neimenggu Company Erdos Branch Company;
- Page 8-9, Sunflower by Zhao Jianhua of China Mobile Jilin Company Baicheng Branch Company;
- Page 36, Halo by Jin Guoyun of China Mobile Guangxi Company Gulin Branch Company.



Scan the QR code for more information on our sustainable development



# Report Disclosure Indexes

## GRI Sustainability Reporting Standards

No.	Page/Omissions
<b>ORGANISATIONAL PROFILE</b>	
102-1	4
102-2	4
102-3	4
102-4	4
102-5	4
102-6	4
102-7	4,8-11,40,50
102-8	50,52
102-9	45-46
102-10	4,45-46
102-11	12,39-42
102-12	36,53,58-63
102-13	13-15,30,34
<b>STRATEGY</b>	
102-14	2-3
102-15	2-3
<b>ETHICS AND INTEGRITY</b>	
102-16	5-6
102-17	40-41
<b>GOVERNANCE</b>	
102-18	39, Annual Report
102-19	6
102-20	6
102-21	37-38
102-22	Annual Report
102-23	Annual Report
102-24	Annual Report
102-25	Annual Report
102-26	5-6,30-31
102-27	5-6,30-31

No.	Page/Omissions
102-28	We plan to establish such process in the future
102-29	37-38
102-30	We plan to establish such process in the future
102-31	5-6,37-39
102-32	6
102-33	6,37
102-34	6,37-38
102-35	Annual Report
102-36	Annual Report
102-37	Annual Report
102-38	Confidential Information
102-39	Confidential Information
<b>STAKEHOLDER ENGAGEMENT</b>	
102-40	37
102-41	53-54
102-42	37
102-43	37-38
102-44	37-38
<b>REPORTING PRACTICE</b>	
102-45	4,58
102-46	4,37-38,58
102-47	37-38
102-48	58
102-49	38,58
102-50	58
102-51	58
102-52	58
102-53	64
102-54	56-57

No.	Page/Omissions
102-55	59-60
102-56	56-57
<b>GRI 103: MANAGEMENT APPROACH</b>	
103-1	39-55
103-2	39-55
103-3	39-55
<b>GRI 201: ECONOMIC PERFORMANCE</b>	
Management Approach	39-40
201-1	40
201-2	46-49
201-3	We participate in Social Insurance System in accordance to Chinese Law
201-4	Annual Report
<b>GRI 202: MARKET PRESENCE</b>	
Management Approach	39-40
202-1	50
202-2	55
<b>GRI 203: INDIRECT ECONOMIC IMPACTS</b>	
Management Approach	14-15,20,34-35,44-45,54
203-1	8-11,15-16,22,26,34-35,45,54
203-2	8-11,15-16,22,26,34-35,45,54
<b>GRI 204: PROCUREMENT PRACTICES</b>	
Management Approach	45-46
204-1	46
<b>GRI 205: ANTI-CORRUPTION</b>	
Management Approach	40-41
205-1	40-41
205-2	40-41
205-3	41

No.	Page/Omissions
<b>GRI 206: ANTI-COMPETITIVE BEHAVIOR</b>	
Management Approach	40
206-1	40
<b>GRI 302: ENERGY</b>	
Management Approach	32-33,46-47
302-1	32-33,47-48
302-2	Currently we do not have in place an external energy statistic system; we plan to establish such a system in the future
302-3	26,48
302-4	26,32-33,46-48
302-5	26,32-33,48
<b>GRI 305: EMISSIONS</b>	
Management Approach	32, 47
305-1	47
305-2	47
305-3	47
305-4	47
305-5	32,48
305-6	ODS is not one of our major emission substances
305-7	Our major emission substances do not include such emissions
<b>GRI 306: Effluents and Waste</b>	
Management Approach	48-49
306-1	48
306-2	49
306-3	No significant spills occurred during the year
306-4	Our operation does not involve hazardous waste or emission
306-5	48

No.	Page/Omissions
<b>GRI 307: ENVIRONMENTAL COMPLIANCE</b>	
Management Approach	46-49
307-1	46-49
<b>GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT</b>	
Management Approach	45-46
308-1	45-46
308-2	45-46
<b>GRI 401: EMPLOYMENT</b>	
Management Approach	50-53
401-1	50
401-2	25,50,52-53
401-3	50
<b>GRI 402: LABOR/MANAGEMENT RELATIONS</b>	
Management Approach	53-54
402-1	53-54
<b>GRI 404: TRAINING AND EDUCATION</b>	
Management Approach	25,34-35,51
404-1	52
404-2	34-35,50-52
404-3	25,51
<b>GRI 405: DIVERSITY AND EQUAL OPPORTUNITY</b>	
Management Approach	50
405-1	50,52,55
405-2	50
<b>GRI 406: NON-DISCRIMINATION</b>	
Management Approach	50,53
406-1	50,53-54
<b>GRI 407: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b>	
Management Approach	50,53
407-1	50,53
<b>GRI 413: LOCAL COMMUNITIES</b>	
Management Approach	20-23,27-28,54-55
413-1	20-23,27-28,54-55

No.	Page/Omissions
413-2	54-55
<b>GRI 414: SUPPLIER SOCIAL ASSESSMENT</b>	
Management Approach	45-46
414-1	45-46
414-2	45-46
<b>GRI 416: CUSTOMER HEALTH AND SAFETY</b>	
Management Approach	12,41-44,49
416-1	12,17,19,41-44
416-2	44
<b>GRI 417: MARKETING AND LABELING</b>	
Management Approach	43-44
417-1	43-44
417-2	43-44
417-3	43-44
<b>GRI 418: CUSTOMER PRIVACY</b>	
Management Approach	12,41-42
418-1	41
<b>GRI 419: SOCIOECONOMIC COMPLIANCE</b>	
Management Approach	40-44
419-1	40-44

## The UN Global Compact's Ten Principles

No.	Index	Page
Human Right		
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights	53-54
Principle 2	Make sure that they are not complicit in human rights abuses	53-54
Labor Standards		
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	50,53-54
Principle 4	The elimination of all forms of forced and compulsory Labor	50,53-54
Principle 5	The effective abolition of child labor	50,53-54
Principle 6	The elimination of discrimination in respect of employment and occupation	25,50,53-54
Environment		
Principle 7	Businesses should support a precautionary approach to environmental challenges	32-33,46-49
Principle 8	Undertake initiatives to promote greater environmental responsibility	32-33,46-49
Principle 9	Encourage the development and diffusion of environmentally friendly technologies	33,48
Anti-Corruption		
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery	40-41

## ISO 26000

Core Issues	Index	Page
Organisation Governance		4, 39
Human Rights	1. Due diligence	53-54
	2. Human rights risk situations	53-54
	3. Avoidance of complicity	40-41
	4. Resolving grievances	37, 43-44,53
	5. Discrimination and vulnerable groups	50,53-54
	6. Civil and political rights	53-54
	7. Economic, social and cultural rights	11-12, 15-16, 20-24, 54-55
	8. Fundamental principles and rights at work	50-53
Labor Practices	1. Employment and employment relationships	50
	2. Conditions of work and social protection	51-53
	3. Social dialogue	53-54
	4. Health and safety at work	52-53
	5. Human development and training in the workplace	51
Environment	1. Prevention of pollution	46-49
	2. Sustainable resource use	32,48-49
	3. Climate change mitigation and adaptation	32-33, 46-48
	4. Protection of the environment, biodiversity and restoration of natural homes	46-49

Core Issues	Index	Page
Fair Operating Practice	1. Anti-corruption	40-41
	2. Responsible political involvement	-
	3. Fair competition	40-41
	4. Promoting social responsibility in the value chain	45-46,53
	5. Respect for property rights	44-45
Consumer Issues	1. Fair marketing, factual and unbiased information and fair-contractual practices	12,41-44,49
	2. Protecting consumers' health and safety	12,41-44,49
	3. Sustainable consumption	26,32-33,47-48
	4. Consumer service, support and compliant and dispute resolution	43-44
	5. Consumer data protection and privacy	12,41-42
	6. Access to essential services	8-11,42-44
	7. Education and awareness	12,41-42
Community Involvement and Development	1. Community involvement	20-25,27-28, 54-55
	2. Education and culture	23-25,54-55
	3. Employment creation and skills development	34-35,44-45,50
	4. Technology development and access	13-16,34-35, 44-45
	5. Wealth and income creation	39-40
	6. Health	19,45,52-53
	7. Social investment	20-25,27-28, 54-55

# Environmental, Social and Governance Reporting Guide of the Stock Exchange of Hong Kong Limited

Core Issues	Index	Page
<b>A. Environment</b>		
A1 Emissions	A1.1 The types of emissions and respective emissions data.	47
	A1.2 Greenhouse gas emissions in total (in tonnes) and where appropriate, intensity (e.g. per unit of production volume, per facility).	47
	A1.3 Total hazardous waste produced (in tonnes) and where appropriate, intensity (e.g. per unit of production volume, per facility).	49
	A1.4 Total non-hazardous waste produced (in tonnes) and where appropriate, intensity (e.g. per unit of production volume, per facility).	49
	A1.5 Description of measures to mitigate emissions and results achieved.	32-33,46-47
	A1.6 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	48-49
A2 Use of resources	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kwh in '000s) and intensity (e.g. per unit of production volume, per facility).	48
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	47-48
	A2.3 Description of energy use efficiency initiatives and results achieved	26,32-33,47-48
	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	47-48
	A2.5 Total packaging material used for finished products (in tonnes), and if applicable, with reference to per unit produced.	Not applicable
A3 The environment and natural resources	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	26,32-33 46-49
<b>B. Society</b>		
B1 Working conditions	B1.1 Total workforce by gender, employment type, age group and geographical region.	50, 52
	B1.2 Employee turnover rate by gender, age group and geographical region.	50
B2 Health and safety	B2.1 Number and rate of work-related fatalities.	53
	B2.2 Lost days due to work injury.	Data not collected
	B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored.	25,52-53
B3 Development and training	B3.1 The percentage of employees trained by gender, employee category (e.g. senior management, middle management, etc.).	52
	B3.2 The average training hours completed per gender, employee by employee category.	52
B4 Labor standards	B4.1 Description of measures to review employment practices to avoid child and forced labor.	50,53
	B4.2 Description of steps taken to eliminate such practices when discovered.	50,53
B5 Supply chain management	B5.1 Number of suppliers by geographical region.	46
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	45-46,53
B6 Product responsibility	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
	B6.2 Number of products and service related complaints received and how they are dealt with.	43-44
	B6.3 Description of practices relating to observing and protecting intellectual property rights.	44-45
	B6.4 Description of quality assurance process and recall procedures.	42-44
	B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored.	12,41-42
B7 Anti-corruption	B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	40-41
	B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	40-41
B8 Community investment	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	23-25,27-28 54-55
	B8.2 Resources contributed (e.g. money or time) to the focus area.	55

## UN Sustainable Development Goals

SDGs	Our Practices	Page
Goal 1: No Poverty	We implement targeted poverty alleviation measures and developed a dedicated targeted poverty alleviation system to better allocate public welfare resources and support the economic development and livelihood improvement of rural areas in poverty.	20-25,27-28 54-55
Goal 2: Zero Hunger	We launch agriculture and rural informatization projects to modernize agriculture with information technology.	20-22,54
Goal 3: Good Health and Well-being	We accelerate the research and development of 5G, Internet of Things, Internet of Vehicles and other technologies, develop innovative smart transportation, dispatch and parking solutions, promoting transportation efficiency and road safety. We develop various smart healthcare applications, such as e-medical records, regional medical & healthcare, and mobile diagnosis, to increase efficiency of medical treatment and improve the access to proper medical care in less developed areas.	17-19,25-28 45
Goal 4: Quality Education	We carry out the "Blue Dream" program to promote educational quality in remote areas in middle and western China. We develop educational informatization and remote education programs.	23-25,54-55
Goal 5: Gender Equality	We ensure equal opportunities and promote work-life balance for our employees. We care for our female employees and strive to support employment and entrepreneurship for women.	25,50-54
Goal 6: Clean Water and Sanitation	We encourage water conservation, track the water consumption of the Company and reduce unnecessary water consumption. All waste water generated in our operation is entirely treated by our sewer system to avoid illegal discharge. We attach great importance to the influences of operation on water source, and we didn't find any incident which had significant influences on water source in this year.	47-48
Goal 7: Affordable and clean energy	We continuously implement the "Green Action Plan" to reduce our own energy consumption. We promote grading standards and green packaging on our supply chain to improve energy conservation of the industry. We promote the use of smart online service and offer a variety of environmental protection applications to help customers conserve energy and reduce emission.	26,32-33,47-48
Goal 8: Decent work and Economic Growth	We strictly prohibit the use of child labor and forced labor. We support our employees to dedicate to entrepreneurship and innovation. We build an open collaboration platform for our partners.	15,25,34-35,45,50
Goal 9: Industry, Innovation and Infrastructure	We promote nationwide informatization and infrastructure construction. We assist remote rural areas in accessing telecommunication service via the "Rural Broadband Demonstration Project" and the "Telecommunication Universal Service Project".	8-11,17-22,26 53-54
Goal 10: Reduced Inequalities	We involve communities in our development and share our achievements with employees and the stakeholders.	25,50-54
Goal 11: Sustainable Cities and Communities	We develop information applications, providing convenience to the public. We pay attention to the joint development of telecom infrastructure and service in urban and rural areas, promoting digital service capabilities in rural areas.	8-9,17-22,26,54
Goal 12: Responsible Consumption and Production	We protect customer information security and prevent telecommunications fraud to ensure security and reliability for consumers. We implement the "Green Action Plan" to manage our environmental impact.	12,26,32-33, 41-44,46-49
Goal 13: Climate Action	We implement the "Green Action Plan" to manage our environmental impact. We develop low-carbon ICT applications and carry out public campaigns to promote the energy conservation and emission reduction of society.	26,32-33,46-49
Goal 14: Life below Water	Currently no relative actions.	—
Goal 15: Life on Land	We evaluate the impact on biodiversity before constructing base stations and take actions to protect local natural environment. We did not find any species which were materially affected by our operating activities.	55
Goal 16: Peace, Justice and Strong Institutions	We strictly improve the long-term mechanism for corruption discipline and prevention and strengthen internal supervision, inspection and rectification.	39-41
Goal 17: Partnerships for the Goals	We actively participate in international initiatives and actions for sustainable development. We cooperate with international telecom operators and industry stakeholders to promote technological advancement of the ICT sector and contribute to sustainable development through innovations.	11,13-15,34

# Feedback

Dear readers,

Thank you very much for taking the time to read China Mobile's "2017 Sustainability Report". In order to constantly improve the sustainability performance of China Mobile and the quality of our reporting, we shall very much appreciate your comments and suggestions.

China Mobile Report Team  
March, 2018

Please rate the report on a scale of 1 to 5 (1 being the lowest and 5 being the highest) about the following aspects.

1. Your overall opinion on China Mobile Sustainability Report	
2. Your opinion on whether this report reflects significant economic, social and environmental impacts of China Mobile	
3. Your overall opinion on our communication with stakeholders	
4. Your overall opinion on information disclosure in this report	
5. Your overall opinion on the format and design of this report	

You are welcome to give more opinions and suggestions:

---

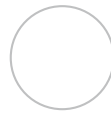
Contact Information:

Name: \_\_\_\_\_ Company: \_\_\_\_\_ Telephone: \_\_\_\_\_ E-mail: \_\_\_\_\_

You may send an email to China Mobile 2016 Sustainability Report Team at CR@chinamobile.com or fax the form to +86-10-52616167. We will take your comments seriously and promise not to disclose your information to any unauthorized third party.



Scan the QR code to send your feedback.



# 正德厚生 臻于至善

With perfect sincerity and integrity, we will strive to fulfil our triple-sided responsibilities: our economic responsibility; our social responsibility and our environmental responsibility



China Mobile Limited  
Registered Address: 60/F, The Center, 99 Queen's Road Central, Hong Kong  
Website for Report Download: [www.chinamobileltd.com](http://www.chinamobileltd.com)

All copyrights reserved. No reproduction by any means is allowed without acknowledgement.

This report is printed on environmentally friendly paper