

05 The Creation of Sustainable Value

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- CHT develops an **IoT (Internet of Things) platform** that integrates five major services— **information security, big data, cloud computing, artificial intelligence (AI), and augmented reality (AR)**.
- CHT is the **first** telecom operator to launch **5G services**.
- CHT is the **first** mobile network operator to receive **ISO 45001** certification.
- CHT is **the only telecom company in Taiwan to have a labor union**.
- CHT is the **first** telecom company to institute sustainable supply chain management:
 - Working with the Sustainable Alliance for Low-carbon Economy (SALcE) to audit and issue sustainability labels
 - Joining the Carbon Disclosure Project (CDP) in an effort to establish a sustainable supply chain
- The **first** telecom carrier that obtained both environment management certifications, “ISO 14067 and ISO 14046”
- CHT proposed “**5I SDGs**” —**iHelping, iSharing, iLearning, iTechology, iProtecting**—Taiwan’s first sustainable initiative that corresponds with the UN’s Sustainable Development Goals (SDGs).



In addition to the pursuit of operational value and the growth of profit for the benefit of our stakeholders, we also allocate substantial resources for the creation of sustainable value. The approach to this is five-fold: capital investment, strategy formulation, action plan, regular follow-up and performance reviews. We take all the necessary steps to ensure that each investment input has a proper sustainability result.

Capital	Impact on Value Creation	Resource Allocated to Sustain Value Creation
Financial	<ul style="list-style-type: none"> To ensure eligibility for licensing (e.g., the 5G bands) Provides sufficient financial resources to support value creation Effective execution of commercial activities Generation and allocation of other forms of capital, such as distribution of shareholder equity, investments, and capital expenditure 	<ul style="list-style-type: none"> Contribution to the government in the form of tax revenue Supports the development of network infrastructure Improves the quality of telecom services
Human	<ul style="list-style-type: none"> Telecom knowledge and skills acquired by employees Human capital represents one of our major operational costs 	<ul style="list-style-type: none"> Introduction to compensation and incentive schemes to attract and retain talent Encourage high value-adding services and innovations Talent training and development programs
Intellectual	<ul style="list-style-type: none"> Licensing, laboratory and R&D expenses, and the acquisition and development of industry technologies Investment to maintain the brand 	<ul style="list-style-type: none"> Ongoing investment in R&D, construction, and services, and maintain service quality and customer satisfaction Investment in the R&D of new technologies and the setting of new protocols
Production	<ul style="list-style-type: none"> Allocate financial capital to develop and maintain infrastructure facilities Operation of the Internet Data Center (IDC) and the installation of wireless facilities and development of software and applications 	<ul style="list-style-type: none"> Ongoing new construction, maintenance, and operation of network equipment Procurement control and the acquisition of more cost/energy efficient network equipment Consolidation of idle space and the recycling and disposal of obsolete equipment
Social	<ul style="list-style-type: none"> Regular contact with the relevant authorities to ensure the conformance and legitimacy of the operations and competition Positive feedback from consumers and the general public helps build credibility of the Chungwa Telecom brand, and minimizes financial outlay 	<ul style="list-style-type: none"> Engage with stakeholders actively to make them better understand of the Company operations Engage in social activities to exert influence through core activities to minimize the digital divide
Natural	<ul style="list-style-type: none"> Natural capital such as infrastructure, raw materials, and energy sources are needed to allocate and take advantage of human capital The use of energy-saving processes and solutions can effectively reduce the consumption of natural capital 	<ul style="list-style-type: none"> Purchase products that are environmental and friendly to reduce consumption of natural resources and raise energy efficiency Use carbon management to minimize energy consumption and apply renewable energy solutions to a greater extent Focus on the development of renewable energy sources, by proprietary and commissioned Photovoltaic systems

S Strategy

We have enhanced the current core business, and actively develop and research new products. It will bring new revenue through better and more innovative ICT products and services, becoming the leader in smart living and the agent of digital economy empowerment.

M Management

We have established the “Digital Convergence Business Department” (an UI team included), which is a core business unit that imports ISO standards of quality system, capable and mature integration models, project management as well as systematized R&D workflow.

A Action

CHT was the first telecom operator that launched 5G services.

We are the first telecom operator that obtained dual certifications in “the regulatory standards for the testing of 5G NR” from the NCC.

We have developed an IoT application platform using our own innovative technology.

Five previously separate pursuits have now been combined, including IoT, AI, Big Data, AR/VR and self-driving cars.

R Response

5G commercialized applications P.62-63

T Target

Short-term:
The accumulation of R&D power and the launch of innovative products and services

Launch of “RISE ON, TOGETHER 2021” Transformation Plan

Mid-long term:
Over 5 million 5G users
Over 10,000 5G base stations

Over 2.3 million users of MOD services

I Indicator

GRI
2,408 patents accumulated

CHT
NT\$3.85 billion of investment in R&D

CHT
More than 1,200 R&D employees

The Digital Economy Motivator



The SDGs CHT contributes to in this section

ICT Products and Services

Chunghwa Telecom has been developing ICT services across borders and smart applications that integrate with networks in the cloud. Seasoned with rich industrial service experiences, it acquired the largest bandwidth in 5G bidding. With the licenses in the 3.5GHz and 28GHz bands for mobile broadband businesses, we were the first to launch the 5G services. With the high speed, low latency, and great connectivity of 5G, combined with the alliance at home and abroad for the industry’s innovative technologies, CHT built an emerging ecological chain of 5G industries. To accelerate the startups in Taiwan’s transition for internationalization, it became the one and only AWS Consulting Partner and Technology Partner for networks in Taiwan. Equipped with certificates in Amazon Web Services (AWS) DevOps Competency, AWS IoT Competency, and AWS Well-Architected, CHT successfully facilitates enterprises in building cloud environments for corporate operation with higher degrees of safety, efficiency, and flexibility.

5G gave rise to the applied IoT technologies as well as new forms of services like the emerging industries of AI, big data, drones, AR, VR, smart home, and smart long-term care, which shall drive the economic growth worldwide. Hence, we charge ahead with technological innovations, self-developing the IoT application platform that combines five service functions in information security, big data, cloud, AI, and VR in the hope of a tighter integration of the hardware advantages of domestic industries with the software energy of telecom operators to offer competitive solutions that embrace transitions.

[5G Vertical Applications](#)



Embrace the Dawn Year of 5G - Annual Convention of CHT Pilot Team

The Annual Convention of “Taiwan 5G Alliance - CHT Pilot Team” was attended by nearly 200 representatives from over 60 institutions in the industries. Chunghwa Telecom took 5G and AI as its foundation for the 5+2 Innovative Industries Plan, actively responding to the government’s Six Core Strategic Industries. We preemptively deploy resources in the Information and Digital Industries, Cybersecurity Industries, Precision Health Industry, as well as Green and Renewable Energy Industry. Releasing “5G Services White Paper”, CHT heralded 5G advancement from “technical verification” to “commercial services”. It joined hands with the partners on CHT Pilot Team to demonstrate 30 corporate applications of 5G vertically across fields while collectively probe into the 5G network evolution and lead the 5G development in Taiwan forward.

5G Consumer Applications

Education

Science Summer Camp

[Website](#)

Working with Institute for Information Industry, we offered new co-branded programs with dual resources. In line with the principle of “adaptative talent development” of the Curriculum Guideline and the premise of “self-regulated learning” of the Ministry of Education, we offered five themed science camp activities that balanced between new technology learning and hands-on work tailored to students in senior high schools (vocational schools) and those to become the freshmen in universities: maker, AI, programming, network communication (e.g. 5G, smart living and smart manufacturing programs), and digital omnimedia.



IoT Smart Platform Competition

[Website](#)

To promote the IoT education, we offer prizes of NT\$1.55 million and organize “IoT Smart Platform Competition” in hopes of drawing students and creators in the society to utilize the IoT Platform to tap into diversified creativity to align their productions better with the 5G IoT industrial application. With that, we endeavor to introduce innovative applied services in different areas of 5G.



Entertainment

iListen

[Website](#)

Working with Smartfun Digital Co., Ltd. in a different field, we launched “iListen” service that offers over 30,000 digital audio contents across sectors and industries as the first telecom operator that invested in the integrated audio content market to foster new experiences for 5G digital reading and listening novel to your “ears”. iListen is divided into Audio Book, Audio Program, and Audio News categories, in which Audio Program (Podcast) accounts for the majority. Anyone with carriers like cellphone or tablet can access and listen to an array of audio.

Superb Experience of 5G across Space

[Website](#)

We set up the state-of-the-art highly efficient base stations and expanded our network capacity on the site of the New Year’s Eve Party in Taoyuan. Meanwhile, a huge army of engineers were mobilized to provide the best 5G communication quality for the New Year’s Eve. Also, with the high speed of 5G and the MEC technology, we presented the performances on the primary stage via the “12K immersive panoramic video” in sync on the secondary immersive stage for 5G premiere.



Medicine

AR Smart Glasses and Telemedicine

[Website](#)

Together with the Yuan Rung Medical System, Jorjin Technologies Inc., and Pinggen Co., Ltd., we promoted “smart medical application service”. We cooperated on telemedicine through AR smart glasses and broadband network to avoid the risk of cross infection, so that physically-challenged patients could also access quality medical care, the medical quality improved and the health of our citizens safeguarded.

5G AIoT Smart Medical Application Service

[Website](#)

We signed the Letters of Intent with National Chiao Tung University and National Yang-Ming University. Combining the advantages of the three parties, we jointly developed 5G AIoT advanced smart medical service and build the future smart hospitals that puts patient at the center for a complete medical care.

Transportation

Autonomous Bus

[Website](#)

Working with Kingwaytek Technology Co., Ltd. and Tamshui Bus Company, Ltd., CHT complied with “Unmanned Vehicles Technology Innovative Experimentation Act” and obtained the license plate for the self-driving bus trial. Conducting the passenger transport service over the route between Danhai LRT Kanding Station and Miranew Square Stop, it became the first “autonomous bus” with passengers on the road in Taiwan. It is also the first self-driving shuttle service in Taiwan that integrates Cellular Vehicle-to-Everything (C-V2X), self-driving technology, roadside sensors, and the cloud monitoring platform. In the future, leveraging the features of high speed, low latency, and great connectivity of 5G, we will continue to integrate relevant technologies like V2X to demonstrate our ability in integration. With the smart transportation service, we aspire to introduce a smarter and more convenient living for our citizens and lead the way forward to usher in more business opportunities for the 5G V2X industry.



Housing

Dementia Friendly Community

[Website](#)

Working with Fashion Intelligence Co., Ltd. and the Pingtung County Government, CHT joined the smart urban and rural subsidies of the Industrial Development Bureau of MOEA, “Elderly Care for a Happy Living in Pingtung”. We built the first “Dementia Friendly Community” in Taiwan. Establishing services like the anti-lost positioning service, emergency rescue, smart images, friendly and safe transportation, and IoT-enabled autonomous health management services for the elderly, we unveiled the first demo anti-lost community in Taiwan, which was recognized with the “2020 Smart City Outstanding Contribution Award - Smart Health”.

5G Smart Yunlin

[Website](#)

With the vision of leading the development of a 5G Smart Nation, we collaborated with the Yunlin County Government to introduce various smart city applications, offering services of smart agriculture, smart flood prevention, telemedicine, smart emergency service, smart tourism, and smart security to collectively build Yunlin as the most brilliant 5G smart city in Taiwan.



Food

Agricultural IoT and AI-powered Farming

[Website](#)

To facilitate precision agriculture, CHT worked with the large field that grew Iceberg lettuce in Yunlin on the “Agricultural IoT and AI-powered Farming” solution. We introduced smart management as well as installed micro weather station and 3-in-1 soil sensing equipment so as to learn about the environmental information in the field like soil and climate in a timely and accurate fashion. Meanwhile, the farming efficiency was increased thanks to the intelligence gathered via IoT and big data. Today, it has been a supplier to a renowned domestic chained restaurant and successfully exported produce overseas. This solution was recognized by the 2020 Smart City Innovative Applications Awards.



Innovative R&D Results in 2020

Cloud Computing & IoT Association in Taiwan

Enterprise Healthcare System (EHS) the Outstanding Application Award of the Cloud Computing & IoT Innovation Awards

Intelligent Transportation Society of Taiwan

Smart self-driving bus monitoring and management system
ITS Application Award

Thesis
An Architecture for Traffic Flow Prediction using Cellular-Based Vehicle Probe
ITS Paper Award Winner

Taiwan Contact Center Development Association (TCCDA)

IVR voice navigation and verification won the TCCDA-CSEA Best Intelligent Customer Service System Application Award for Outstanding Customer Service

Industrial Technology Research Institute (ITRI)

“Intelligent Photovoltaic Monitoring System” won the masterpiece in solar photovoltaic innovative application product design contest, making it the only cloud management system application service that won the honor

Taiwan External trade development council (TAITRA)

Recognition with **3** gold, **5** silver, and **1** bronze awards from Taiwan Innotech Expo

The Creative Industry Pilot



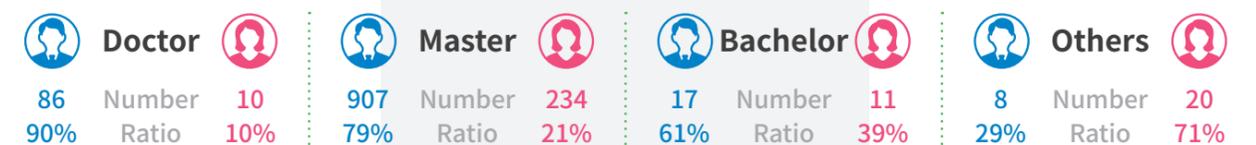
The SDGs CHT contributes to in this section

CHT’s innovative strategies to cope with this situation include enhancing the current core business, active research into new product development, and generate more revenue from new and innovative ICT products and services. Chungwa Telecom Laboratories (CHT-TL) is a designated R&D institute that has been established for research into new innovative services, core technology, and visionary applications. We strive to explore convenient and useful services from the consumers’ perspective. Solutions are formulated through intricate coordination; the purpose is to find ways to “simplify tasks for consumers, and let CHT deal with the complexity.”

Overview of Chungwa Telecom Laboratories in 2020

- **1,293** employees (nearly 6% of total) with **94%** being R&D personnel
- The funding for R&D totaled NT\$**3.85** billion, which was **1.85%** of the consolidated operating revenue.
- The laboratories secured **184** new product/ technical patents (**152** domestic and **32** overseas) to a total of **2,408** (**2,170** domestic and **238** overseas). **1,032** of the patents are currently in force (**904** domestic and **128** overseas).

The Telecom Laboratories Human Resources Structure



Innovation, Creativity, Startup

We constantly encourage creativity and innovation. To convert creativity to tangible output, drive industrial development, and boost the future revenues of the Company, we adopted strategies of concurrent advancement internally and externally. In response to the digital convergence and the cultural and creative trend, CHT presents Digital Innovation and Application Series themed with digital living. We uncover top-notch innovative talents through the competitions while allow creativity to be realized so as to elevate Taiwan's soft power in innovation.

IoT Smart Platform Competition

The "IoT Smart Platform Competition" in 2020 established "NB-IoT Special Award" specifically in light of the 5G commercialization in order to encourage the research, development, and application in NB-IoT. Prizes totaled NT\$1.55 million were offered to fully encourage and discover the top-notch innovative talents in IoT.

Nearly 200 teams signed up for the competition with participants up to a thousand. Through the research, development, and application of IoT, we shall better meet the needs of smart city all around. The juries took creativity and completeness of works as well as their IoT commercialization value as the key criteria. Through the competition, we expected to inspire students, industries, and startups to chip in and demonstrate creativities in variety. Through the fusion of all sorts of technologies, we build seamless IoT services and aspire to unveil innovative services and applications in the 5G and IoT business areas.



Social Innovation

CHT PHR – Building a Digital Healthy Living

Chunghwa Telecom is committed to the innovative 5G application as "Leader in Smart Living" that harnesses the technology power in smart medicine to improve the efficiency in diagnosis and treatment for users. A user may open their access on CHT Personal Health Record (PHR) to synchronize their physiological data for the medical team to track, so that the medical institution may retrieve the latest physiological data, provide accurate health information in line with the user's condition, and determine if there is a need for another hospital visit as well as help the user in clinic registration to save patient's effort in traveling and waiting, which further benefits the doctors on the hospital to analyze and diagnose patient's condition. In addition, the users may review their medical records and health conditions via My Health Bank, which elevates the care quality.

The First Integrated Smart Prison in Taiwan

We enhanced the smart prison management via ICT integration technology, assisting the Chiayi Detention Center to effectively reduce the manpower burden and improve the management efficiency and safety for the corrective agency, which also improved the human rights and autonomous management of the inmates. The five smart management highlights are as follows:

1. Two-factor Identification System: Face recognition system is combined with the QR Code to realize a rapid two-factor authentication while prevent impersonation.
2. Installation of Electronically monitored Smart Elevators and Passages: Managing through the dedicated gateway control to monitor the spaces electronically and reduce the manpower dispatched repeatedly on site.
3. License plate recognition and positioning: Identification and authorization of vehicles entering the detention center are conducted via AI image recognition and sensing technology to enhance the security.
4. Shopping: The inmates may purchase items and inquire the balance of their deposited amount via the kiosks in the detention center, which reduced the burden of the staff.
5. Medical Care: Health bracelets are issued for inmate health management, while medical staff can access and monitor the physiological information of inmates to reduce the likelihood of anomalies.

Environmental Innovation

Air Quality Sensing IoT

In light of the rising demands for air quality monitoring from the government agencies in these years, we utilized smart monitoring IoT technology and assisted the Changhua County Government to install air quality sensors, so as to monitor temperature, humidity, fine particulate matter (PM2.5), etc. The sensing data is transmitted to the air quality analysis platform in real time. With the temporal changes and relative positions of the sensors, it analyzes "the relative tendency of data" and "the temporal and spatial attributes in data" as the basis for inspection.

The MOD Microfilm Contest

An ultra-high amount of prize up to a million NTD was offered this year with the addition of “CHT VR Collaboration Award”. With the prizes as well as the provision of VR screening equipment and technical support, we aimed to fuel the creative energy of VR short film production domestically and take the microfilm works to a new level. With CHT HamiVideo, smart glasses, and the high speed of 5G combined, it ushered in a whole new experience with film watching.

There were 300 creative teams registered in 2020 with a variety of themes and rich collection of genres. In the end, 37 microfilms and 5 proposals of original VR microfilm were shortlisted. In light of the Dawn of the 5G Era and to put the innovative spirit of “Lead the Future and Showcase the Creativity” in action, we further organized “VR Film Festival” to screen four masterpieces.

The finalist film festival this year not only put the works on screen, but also presented After-Screening Talks to share the creators’ thoughts and emotions with the audience. All the shortlisted entries of the microfilm group will be available on the MOD platform to offer these brilliant works more opportunities to shine.



FunPark Creative Storytelling Digital Picture Book Contest

The one and only “FunPark Creative Storytelling Digital Picture Book Contest” catering to children in Taiwan have been organized for eight years in a row. Aside from encouraging children to dare to imagine, create, and perform, it also expected to allow children to pave their way of digital learning and living early, helping children to equip themselves with digital competencies.

There were over 1,600 entries submitted this year. Under the guidance of the Ministry of Justice, the Best Performance Award was added to the Anti-drug Group. Best creative children ambassador team would be recruited from the Contest, which was designed to motivate these young creative teams while spicing up the performances in the Final. In addition, we worked with the largest publisher in the U.S., Scholastic, and introduced “English Reading Group” to encourage children dare to speak English and cultivate their language proficiency so as to bridge themselves to the world.



S Strategy

Enhance talent recruitment with “5G and transition” as the dual-track strategy

Ensure employees’ work rights and freedom of association and implement communication channels to facilitate the exchange of opinions between the employer and employees

Provide consumers with virtually and physically diverse, multilateral and high-quality service channels

M Management

Ensures all employees sign a formal “Employment Agreement” duly observe the Labor Standards Act and other applicable laws, and calls for labor-management meetings at regular intervals

Accreditation of the SGS Qualicert service certification in service center

A Action

The Company has specialized training facilities - Telecom Training Institute and Occupational Safety and Health Department in place

Transparent and diverse means of communications and grievances

The external third-party Certificate of Conformity for Code of Conduct (CoC) obtained

Established the system of self-inspection, audit, and supervision for service quality

Launch the personal information management and auditor certification system

R Response

The only Taiwanese telecom carrier with an established union

Electromagnetic wave inspection service

The first telecom carrier in Taiwan to receive ISO 45001 certificate

T Target

Short-term:
Extensively recruits talents in 5G application

Fosters talents and allows all employees to share the results of the operations, recruit and retain talent with a **3%** salary increase

Make personalized high-quality products and services available to all our customers

Mid-long term:
All branches receive ISO 45001 certification by 2021

I Indicator

GRI
Basic salary offered by Chunghwa Telecom is **1.3** times the minimum wage in Taiwan

GRI
Training Hours Per Capita: **50** hours

GRI
“Collective Agreement” employee coverage of **99.26%**

GRI
No violation of laws concerns personal information, health, safety or product labeling

The Happiness Value Protector



The SDGs CHT contributes to in this section

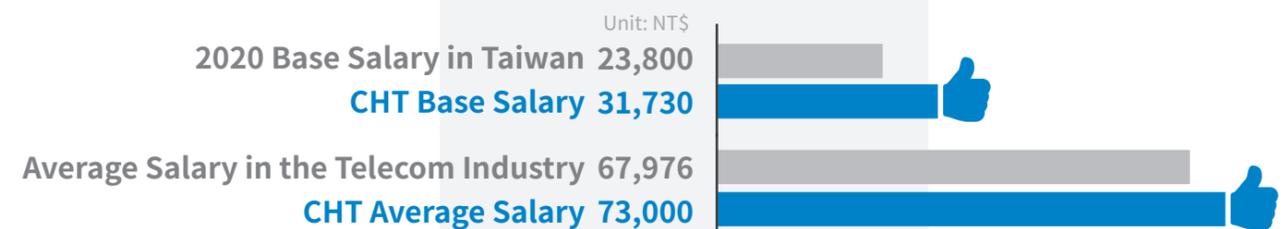
Ensuring Employees’ Happiness

Protecting the Rights of Workers

Chunghwa Telecom treats employees as their most important business partners. To ensure the best protection for the work rights of the employees, Chunghwa Telecom signs an “Employment Contract” with each employee and undertakes to notify them of any changes in terms of employment in compliance with the Labor Standards Act. Furthermore, CHT uses several different channels, including seminars and labor-management meetings, to maintain harmony and a mutually beneficial working relationship with employees.

A Competitive Compensation System

We have a “Compensation Committee” in place to ensure that compensation for the best talent is competitive. In addition, the Company has a transparent system for sharing business performance with its employees. Compensation for executive management has been standardized and details are disclosed publicly in the annual reports. The Company offers equal compensation for all entry-level employees of the same grade. Those who possess relevant skills and work experience may have compensation evaluated based on educational background, career experience, expertise, and professional qualifications. Under no circumstances will compensation ever be determined by gender or racial differences.



1. Average Salary in the Telecom Industry: According to the “Monthly Wage and Productivity Report, December 2020” published by the Directorate General of Budget, Accounting, and Statistics.
2. Base Salary of CHT: The average salary level in December 2020.

Benefits Expense of Full-time Non-supervisory Employees

Item	Unit	2019	2020	YoY
Full-time Employees	Person	21,473	20,957	-2.40%
Average Salary	NTD Thousand	1,483	1,489	+0.40%
Median Salary	NTD Thousand	1,466	1,467	+0.07%

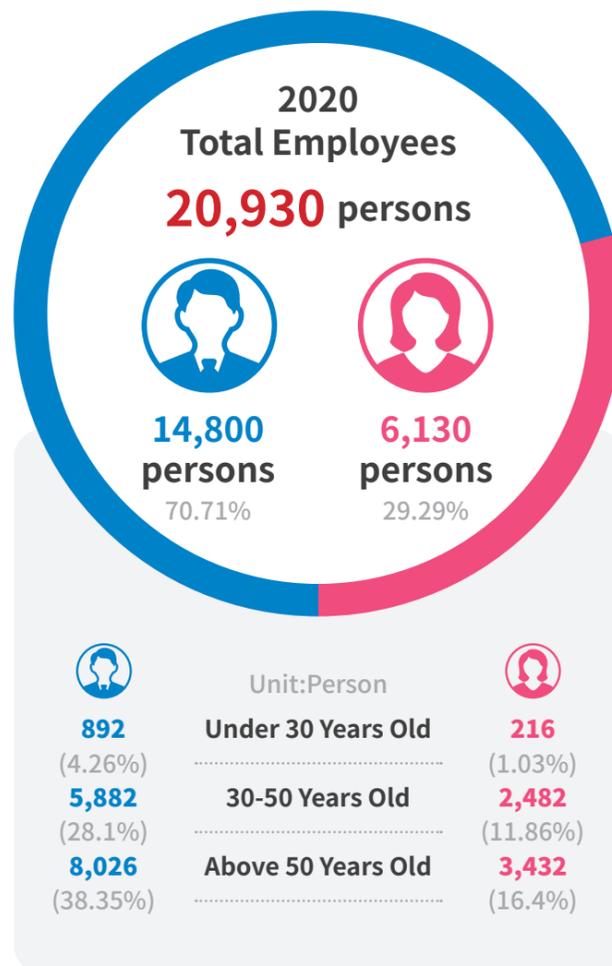
1. The number of full-time employees is calculated on a “yearly average” basis. The total number of employees of the year (including the ones on leave without pay, separated, and retired) is subtracted by the number of managers before calculating the yearly average number of employees of the year based on the months of pay to the employees in service in a year, instead of based on the number of employees at the end of a year.

2. The definition of non-supervisory employees, please refer to P.32-35 of the Annual Report.

Human Resources Structure at CHT

In 2020, CHT has more than 20 thousand employees with an average age of more than 50 years old. There will be more than 5 thousand employees retiring over the next 5 years, and 50% of the employees will be eligible for retirement over the next 10 years. Current senior management is included in this retirement tide. To cope with this problem, CHT is actively cultivating new talents to ensure that knowledge is passed down, filling the manpower gap of new generations.

Chunghwa Telecom understands that the industry competition we are facing now is not only the telecommunications industry, but the changing information and communication industry chain. In the future, the recruitment direction of talents will be based on the large-scale public recruitment method which focuses on various professional fields. We will adopt an external network approach to transform Chunghwa Telecom’s talents into an important kinetic energy for the continuous improvement of the next stage.



New recruits rate = Number of new employees / [(Number of people at the beginning + number of people at the end) / 2]

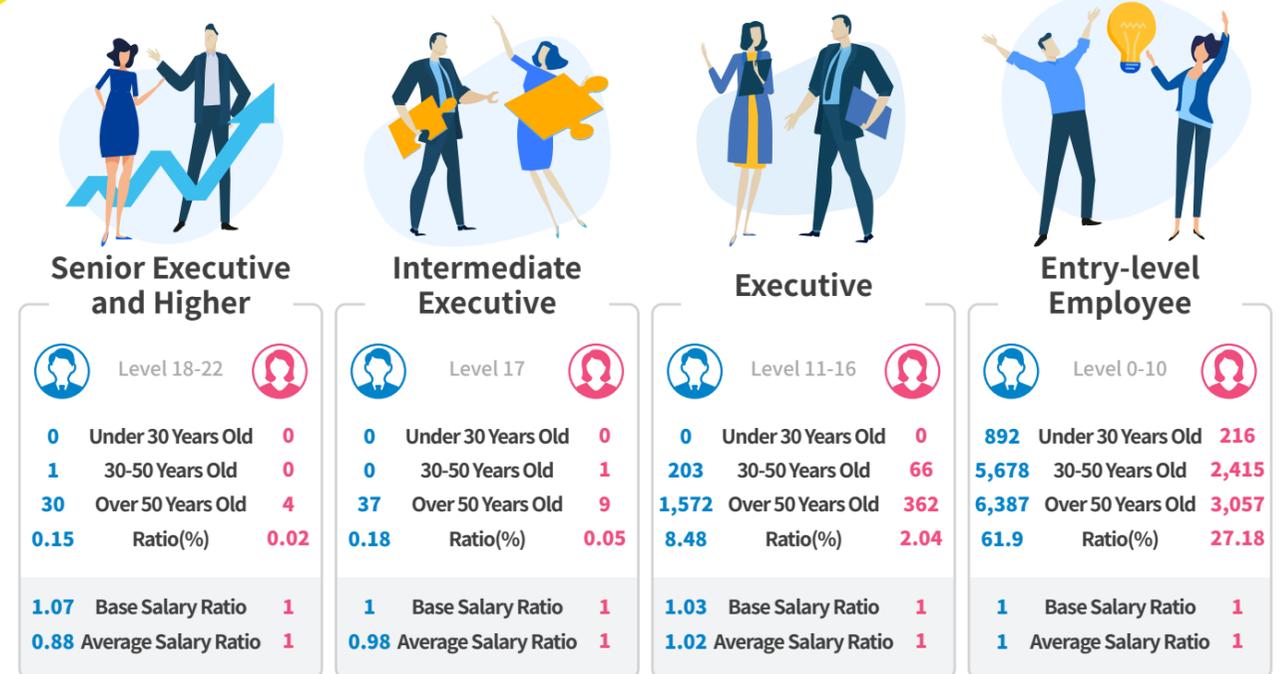


1. Turnover rate (resigned+retired) = Number of turnover employees / [(Number of people at the beginning + number of people at the end) / 2]

2. In 2020, there are 114 employees resigned (0.54% of all employees), and 1,525 employees retired (7.23% of all employees)

3. The turnover rate in 2017-2019 are 4.2%, 3.97%, 5.76%

Number of persons in each grade and sex salary ratio

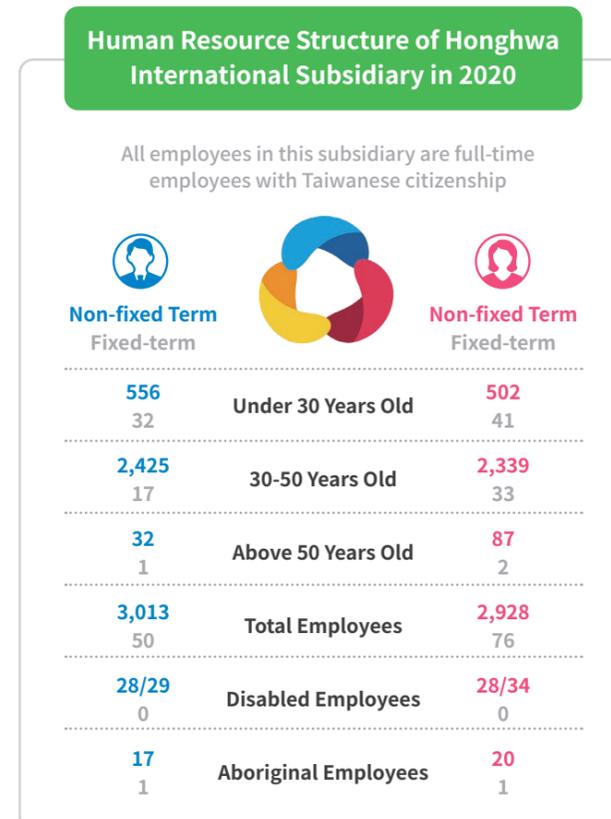


1. All employees are Taiwanese and mainly full-time. Due to the needs of industrial management, we hire 1 contract-based employee.

2. For all grades, basic salary is defined as the fixed salary (monthly).

3. For all grades, average salary includes fixed salaries and variable portions (including the monthly salary, year-end bonus, bonus, etc.)

4. Levels of all grades: Basic 0-10; Executive 11-16; Intermediate Executive 17; Senior Executive 18-22.



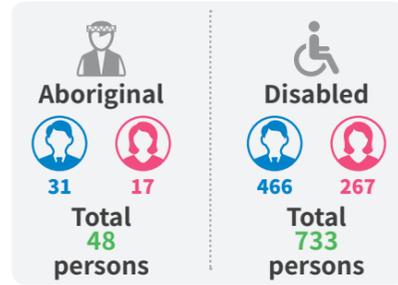
The table includes non-fixed term contract personnel/non-fixed term part-time personnel included.



Gender Equality and Diversity

Chunghwa Telecom is committed to provision of a working environment with dignity and safety for employees. We implement employment diversity, equal pay, and impartiality in promotion opportunities, protecting employees from discrimination, harassment, or unfair treatment due to race, gender, religious belief, age, political inclination, or any condition thereof protected by the pertaining laws and regulations.

Chunghwa Telecom places great value on human rights and gender equality. In 2020, female staff accounted for 29.29% of the total, and 27.84% of the managers were women. To conform to the essence of the Gender Equality in the Employment Act, the Company has outlined its sexual harassment prevention policy and established a “Complain Investigation Committee” that specializes in the handling of employee complaints about work-related discrimination and improper behavior. The investigation committee has 5 members, 3 of whom are female. Our effective control has resulted in no incident of discrimination being reported in 2020. Chunghwa Telecom has done more than comply with the quota required by Article 38 of the Persons with Disabilities Rights Protection Act and have hired more than the required number. In 2020, the number of persons with disabilities hired was 3.49 times of the statutory quota. (quota: 210; actual hire: 733. Where a department or institution employs a seriously disabled person in accordance with the act, the disabled person shall be calculated as two.) We had 48 aboriginal employees on board in 2020. We fully respect their cultures and no violation of work or human rights was reported during the year.



The Only Telecom Carrier in Taiwan with a Union

Chunghwa Telecom is the only telecom carrier in Taiwan with a union established. We have signed a collective bargaining agreement with them which covers an extensive range of issues from redundancy, reward, discipline, promotion to health and safety. This initiative not only complies with local laws and international human rights conventions, but is also a show of our commitment to the protection of employee interests. In addition to the union established by Chunghwa Telecom, employees have also assembled 15 other unions under the organization. Until February 2021, 99.26% of employees were union members. A labor director is appointed to sit on the Board of Directors for a worker’s representative, through whom workers can more freely express opinions.

Chunghwa Telecom complies with Article 16 of the group agreement about transfers. If there is a need to transfer a union member due to changes in the organization such as establishment, alteration, merger, and/or closure of a department, the Company will do so only if necessary and will respect the wishes of the member. In addition, all transfers must comply with the “Five Principles of the Labor Standards Act.”

Open Communication and Grievance Channels

We have open communication channels in place to ensure that employees needs or suggestions are heard. Any violation or misconduct in the workplace can be reported to the relevant department using the channels provided. There were 43 complaints in 2020, including behavior as disrespect of the CHT system, principles, administrative management, and violation of the employee code of conduct or other misconduct. There were no human rights related cases in 2020.

We hold regular labor-management meetings to maintain contact between employees and the employer. There are 9 representatives from each side, employer and employees. The chair is held by each side in turn. The Chairman and President of Chunghwa Telecom engage regularly with the Chairman of the Union, Directors, and Supervisors in meetings, in person and by telephone. The Chairman of the Chunghwa Telecom Workers Union is entitled to participate in disciplinary review meetings, performance appraisals, and business report meetings to ensure that workers are kept up to date on Company news. In 2020, the Company held 6 nationwide labor-management meetings during which employees and the employer were able to reach consensus on many issues. Meetings for the discussion of particular matters can be convened, or if any change to work conditions is necessary.

The Employee Grievance Channels

- CHT intranet portal: <http://eip.cht.com.tw>
- Accountable department: Human Resource Division, Head Office (Room 503, No. 21-3, Section 1, Xinyi Road, Taipei City 100)
- Hotline: 0800-080998
- Fax: (02) 2357-0007
- Email: chthr@cht.com.tw



Focusing on Employee Training and Development

Our fundamental business focus is “core competitiveness, professionalism, efficiency, and touched service”, and we seek to develop innovative talent through a combination of internal and external training. We have a comprehensive training system to assist employee development in all dimensions. The system starts with the incorporation of “needs analysis” and “in-depth planning”, and is followed by performance assessment and review after the program ends. This systematic approach enhances professional skill and work efficiency, and helps the Company improve its coordination of human resources. Also, it is connected with the operational benefits of the Company.

Human Resource Development Strategies

The Chunghwa Telecom Training Institute has devised human resource development strategies based on business focus and talent requirements.

- ✓ Alignment of training and business development
- ✓ Alignment of training targets and courses
- ✓ Mobilization of digital learning
- ✓ Government-industry-university institute platform
- ✓ Innovation and Benefits

Digital Classroom

Chunghwa Telecom has introduced an online learning social network (the Digital Classroom) with an e-Learning approach quite unlike that of conventional classroom teaching. In this new learning social network where users may share and transfer knowledge at a lower cost, and with a far better yield of good results. The broadband installation college, for example, is a platform where information such as technical documents, cases, video tutorials, and technical discussions can be exchanged and learned.

Online Broadcast

Online broadcasts can be used to teach topics related to specific work. They are delivered over the internal UC platform, and offer employees a fast and convenient way to gain knowledge and observe new trends. Online broadcasts transmit the experiences of experts to all employees without limit and boost business growth. The topics in 2020 included core business, ICT extended business, business in the new field and new knowledge of management and health care. There were 227 classes with 12,989 person-times.

Results

1. Provide international public cloud certification training

In line with the corporate cloud strategy, training and certification mentoring for AWS, Azure, and GCP certificates were organized in 2020 to facilitate different institutes to acquire a total of 279 international public cloud certificates.

2. Improve management capacity

Manager management seminar was organized to effectively resolve management issues and promote business development and profit the revenue growths. Quality of communication was enhanced in the seminar to promptly respond to clients' pain points and accurately promote the focused businesses of Chunghwa Telecom. A total of 357 senior managers participated in 2020.

3. New business potentials

- In light of the Dawn Year of 5G Commercialization, there came a huge demand for 5G constructions, maintenance, and promotion for relevant personnel trainings. The base station installation and settings certification programs were organized with 19 staff certified, while a series of 5G technology programs and programs for corporate client applications were organized with 6,088 person-times trained, so as to prepare the talents required for 5G development.
- 31 important professional seminars were organized with 3,309 participants, including seminars respectively on 5G wireless technology, IoT development trend and service application, and big data application, etc. Courses of photovoltaic technical training series, business promotion, planning and design, construction and maintenance manpower are totaling 16 classes and 181 person-times.



Dedicated Training Units

Chunghwa Telecom has founded the Telecom Training Institute that specializes in training technical as well as managerial talent to gain more core competitive advantages. A Talent Development Team has also been established, with the President as convener, to conduct regular reviews of the planning and outcome of training. This is important to ensure that the training outcome is closely aligned with the operational policy to achieve a “seamless combination of training and practice”. It was awarded with “Certificate of Talent Quality-management System (TTQS) – Gold” by the Workforce Development Agency, Ministry of Labor in 2020.

[Chunghwa Telecom Telecommunication Training Institute](#)

Diverse Learning Channels

To meet the needs of the organization, and the personal interest and even the personality traits of employees, the Telecom Training Institute provides a diversity of learning channels. These help employees develop new in-depth professional ability as well as a renewal of their management skills to bring about growth and proper career development. Employees can attend training at the Telecommunication Training Institute during regular hours, in the evening or on holidays. The institute can also dispatch tutors to relevant business units for organized training sessions. The institute offers 8 learning channels: class teaching, distance education, digital learning, mobilization digital learning, direct-broadcast courses, external programs, on-site tutoring, and the digital library.

New Employee Orientation

To provide new recruits with a general understanding of company vision, values and culture and help them adapt to the new criterions and work environment, the “New Recruit Counseling Guidelines for Chunghwa Telecom and Subordinate Institutions” was introduced in 2014 as well as a counselor system and e-Learning audio courses to accelerate the new employees blended into new work.

Recruitment and Development of the New-Generation Talents

The year 2020 marked the Dawn Year of 5G, we endeavored to develop important businesses in 5G, IoT, AI, and cybersecurity. Formulating the golden trinity of Chunghwa Telecom, “Innovation First, Technology First, Talent First”, we built the stage for youth to shine, fostering the values of ONE CHT.

- Recruiting professional talent in ICT, AIoT, 5G application, technology innovation, and other new business opportunities.
- The nurturing of the next-generation talent: The Company introduces new talent-training programs on a yearly basis. It provides employees with professional and diverse training options, and certifies the development of skill.
- Emerging businesses: new ICT technologies are being infused with knowledge from other fields. The Company will focus on training professionals who can adapt and apply their knowledge across several different fields of expertise such as cloud computing, big data, and product packaging to actual practices.

Fair Evaluation

Chunghwa Telecom now applies “Employees Performance Evaluation Guidelines” which are used in the appraisal of employee performance to develop the corporate culture where employees, customers, shareholders, and the Company will all be winners. Supervision will be provided for underperforming employees who will be guided until the appropriate improvement has been made and they are back on track. CHT conducts performance appraisal at two levels: general staffs and senior managers. Performance appraisal involves a series of face-to-face discussions between employees and line managers at the beginning of a year to set personal goals, and also at mid-year and years end to evaluate the degree of employee contribution to the Company. Performance bonuses and employee remuneration are tied to individual performance. In addition to linking employees’ salary bonus to their annual performance, CHT has established a reward of senior employees, which is payable on a one-year deferred basis and apply to all employees, provided that the employee has a certain standard of continuous service and recent performance appraisal results.

Nurturing of Professional Talents

Chunghwa Telecom is dedicated to providing employees with a diverse learning environment. In 2020, Chunghwa Telecom training expenses exceeded NT\$493 million and employee training sessions totaled 1,045 thousand hours. We encourage employees to commit themselves to long-term learning. Subsidies were given to 329 employees in 2020 and the Company compensation amounted to NT\$6.05 million.

Item	2018	2019	2020
Total Training Expense (NT\$thousand)	502,370	497,901	493,000
Training Per Capita (NT\$)	22,707	22,938	23,555
Total Training Hours	908,316	961,234	1,045,267
Training Hours Per Capita	41	44	50

In line with the Company’s policy of austerity, the total training expense in 2020 was lower compared to that of 2019. Nevertheless, the total training hours and the training hours per capita increased to meet the trainings for important businesses like the Dawn Year of 5G.

The Happiness at Work Survey

Since 2011, we have carried out annual “Chunghwa Telecom Happiness at Work Surveys” on an anonymous basis. This helps us to understand how employees feel about their work and their working status, and are used as a reference for the improvement of management. The survey topics include individual opinions about the working environment, welfare and corporate transformation. By listening to the opinions of the employee, we get to understand their feelings and expectations. The 2020 “Happiness at Work” survey is in a hundred-mark system. In total, 4,698 questionnaires were returned (23% response rate), 4,431 of which were determined to be valid (94%). The average score of “Happiness at Work” is 82, and the average score of “Employee Engagement” is 90. We will continue these surveys and respond to employee opinions.



Health and Safety Management

Chunghwa Telecom was the first telecom service provider in Taiwan to adopt the OHSAS 18000 Occupational Health and Safety Management System. In response to the renaming and migration from OHSAS 18001 to ISO 45001, as of the end of 2020, the total of 26 branches completed the certification of ISO 45001. It is scheduled to complete the migration to ISO 45001 certification throughout the branches by 2021. We shall better our objectives in workplace safety and health management, “ongoing improvement in safety and health facilities; establishment of a safe, healthy, comfortable, and friendly working environment; reduction of work-related accidents”.

In addition to identifying hazards and assessing the risks associated with telecom operations, the Company has also applied restrictions and enhanced risk control for high-risk tasks, while taking effective precautions to reduce occupational hazards. In addition to complying with safety and health regulations, the Company has also been active in the improvement of the current work environment and takes regular action with regard to safety and health facilities and measures.

We take part in all government initiatives and actively promote a healthy workplace. 3 divisions within the Company have received awards under the “National Workplace Safety and Health Campaign” organized by the Health Promotion Administration, Ministry of Health and Welfare.

[More information about GRI 403 Occupational Health and Safety Disclosure](#)



- ✓ Follow the Safety and Health Regulations and Enforce Self-Management
- ✓ Implement Hazard Identification and Enforce Risk Control
- ✓ Strengthen both Mental and Physical Health Services
- ✓ Encourage Participation through Open Communication and Consultation
- ✓ Continue the Improvement of Equipment and Create a Quality Work Place
- ✓ Conduct Safety Training Programs to Raise Safety Awareness

Reducing Occupational Hazards

The Chunghwa Telecom Work Accident Guidelines contain detailed procedures for assessing occupational illness. Employees suspected of having become ill as a result of their occupation are assisted with an application for verification at the local municipal/county/city authority, in accordance with the Protecting Workers from Occupational Accidents Act. We manage risks at the source, by making sure that construction risks are under control from the early design stages of a project. The line construction management system has been amended with respect to highlighting high-risk operations as well as risk assessment information to ensure operators are able to identify potential risk in advance.



All high-risk operations are subject to approval by the ICT. Workers are also required to take site pictures with handheld devices and upload them to the monitoring system so that precautionary measures can be identified and taken to prevent such accidents as falls, oxygen deprivation, etc. To promote employee awareness and safety and health skills, we organized 124 training sessions in 2020 and there were 7,570 enrollments. Among which, the enrollment for first aider training is 614 with a total of 11,052 hours, and that for AED training of Taipei City is 307 with a total of 614 hours.



The “eSafe Wizard” App

As part of our effort to mobilize management, the eSafe Wizard app allows employees and contractors to report safety violations, and apply for operation permits. The app also allows us to remotely perform spot checks on safety compliance, moving the entire management process onto the cloud. It is completely paperless, instantaneous, and highly effective. Through the eSafe Wizard app, the completion rate of permit applications for operations (hot work, work aloft, scaffolding, power or fire protection interrupted) hit 97.8% while that of hazard notification reached 99.9% in 2020.

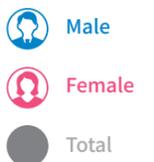
The app eSafe Wizard was awarded with the Taipei City Labor Safety Award - Work Safety Creative Award from the Department of Labor, Taipei City Government. Starting from 2017, the app has been promoted for all institutions of Chunghwa Telecom as well as Taiwan Railways Administration and Taiwan Power Company to introduce the mobilized safety and health management with our technological resources sharing.



Table of Work-related Injuries and Illnesses of Employees and Non-employees in 2020

Workers	CHT			On-site Contractors		
	Male	Female	Total	Male	Female	Total
Number of hours worked (hr)	41,860,000			11,934,360		
Number of fatalities as a result of work-related injury (person)	1	0	1	0	0	0
Fatalities as a result of work-related injury rate (%)	0.02	0	0.02	0	0	0
Number of recordable work-related injuries (person)	33	7	40	11	9	20
Recordable work-related injuries rate (%)	0.79	0.17	0.96	0.92	0.75	1.68

- Number of hours worked: 8 hr*number of people *number of working days
- Fatalities as a result of work-related injury rate =(Number of fatalities as a result of work-related injury / Number of hours worked) × 1,000,000
- High-consequence work-related injuries rate (disabled for more than 6 months)=(Number of high-consequence work-related injuries / Number of hours worked) × 1,000,000
- Recordable work-related injuries rate =(Number of recordable work-related injuries / Number of hours worked) × 1,000,000
- Definition of On-site Contractors: individuals or organizations that work on the operation sites of Chunghwa Telecom.
- The main types of work-related ill health: trip, fall, and traffic accidents.
- Traffic accidents during commute is excluded.
- One fatality as the result of work-related injury at Chunghwa Telecom in 2020, who passed away in coma at work due to cardiogenic shock.



Health Promotion Activities

CHT considers its employees health to be a valuable company asset. Providing a safe and healthy workplace is a basic requirement to our employees. Apart from a wide range of benefits, including health checkup, keynote speeches, and promotional activities, we also commit ourselves in the promotion of sports in workplace and in the support to sports industry. In 2020, we spent NT\$76,915 thousand on employee health care.



Item	2020 Contributions			Item	2020 Contributions
Health Examination of Employees and Dependents	<ul style="list-style-type: none"> The Company offers much better care than required by law and employees are given the choice of various health checkup packages. A total of 20,428 employees had checkups in 2020. Family members are also entitled to checkups at the same rate, and a total of 3,276 persons participated in 2020. 			Healthy Workplace	<ul style="list-style-type: none"> The noise level, lighting, temperature, humidity and air quality of our offices is tested regularly. The offices are also cleaned and maintained on a regular basis to ensure workers have a comfortable working environment. Furthermore, all offices feature ergonomic chairs, natural ventilation, indoor plants and other elements of a healthy work environment provided.
Free Influenza Vaccination	<ul style="list-style-type: none"> Free influenza vaccination is available for all employees who fit the requirements for vaccination at public expense. Registration can be done online and 1,171 employees were vaccinated. 			Employee Cafeteria	<ul style="list-style-type: none"> Our employee cafeteria offers a diverse range of nutritionally balanced meals to choose from. All food suppliers are subjected to rigorous review to ensure the safety of food served to our employees.
Employee Assistance Program (EAP)	<ul style="list-style-type: none"> CHT was one of the largest corporations in Taiwan to start promoting the Employee Assistance Program (EAP) since 2007. The EAP carries out 5 consultation sessions each year, in which outside experts are contracted to help employees resolve their legal, medical, family, workplace, and stress problems. Case managers made 19 visits and completed 480 service sessions in 2020. 			Balancing Work and Life	<ul style="list-style-type: none"> Chunghwa Telecom has 30 hostels that provide travel accommodation, encouraging employees to achieve a balance between work and life.
Employee Health Service	<ul style="list-style-type: none"> Provide employees health consultation via online or phone appointment. Physicians visited the plants 34 times a month. Sessions were for 3 hours and each patient was allocated 30 minutes. Healthcare personnel use the Employee Health Management System for the analysis and evaluation of health records. Where necessary, extra consultations can be arranged between the physicians and the employees for proper guidance and healthcare. 			Flexible Working Hours	<ul style="list-style-type: none"> Chunghwa Telecom provides two flexible working hour sessions in the morning and afternoon: 8:00-9:00 and 17:00-18:00.
	Thirty-minute medical consultation with a physician (30 minutes / per person)	On-site visits by physicians	Consultation with a nurse		
	2,385	407	10,485	Epidemic Prevention Leave	<ul style="list-style-type: none"> During the 2020 COVID-19 epidemic prevention period, 75 employees granted with epidemic prevention leave for home quarantine, totaled 3,139 hours. The "epidemic prevention childcare leave" is available without pay and would not affect the full attendance and bonus, nor did it count as personal leave/sick leave. 124 employees applied for such leave with a total of 3,798 leave hours.
Employee Health Promotion	<ul style="list-style-type: none"> A total of 10,398 employees participated in 151 health seminars. 10,950 employees attended 71 educational trips. Health examinations were given to 877 employees in 12 sessions and 21,811 employees participated in 316 large-scale events. The Company published two health-related articles each month about the concept of disease prevention. 				

Building a Happy Business

CHT regards employees as important assets. We offer a commitment to our employees refrain from making layoffs and salary reductions. This means employees can devote themselves fully to boosting performance at work to create more value for themselves and the Company. In response to the government's policy to boost birth rates, CHT is providing childcare subsidies and maternity benefits to young employees with children aged 0-6 years old. We are committed to building through software and hardware resources, expecting to set up workplace childcare support centers in Taipei City, New Taipei City, Taoyuan City, Taichung City, Tainan City, and Kaohsiung City that are scheduled to open in August 2022 to provide education and care services for the children and grandchildren of employees and create a friendly workplace, so that employees can be confident in their work, creating higher value for individuals and businesses, and build a healthy and secure business.



Leaves Better than the Statutory Requirements

Labor Standards Act

CHT Policy	Statutory Requirement	Comparison
<ul style="list-style-type: none"> Employment years 7 : 21 days Employment years 10 : 28 days Employment years 15 : 30 days 	<ul style="list-style-type: none"> Employment years 7 : 15 days Employment years 10 : 16 days Employment years 15 : 21 days 	Annual Leave
14 days	8 days	Marriage
5 days of personal leave with pay	No pay	Personal Leave
42 days regular leave, rest day, and national holiday not included	8 weeks regular leave, rest day, and national holiday included	Maternity Leave
8 days	5 days	Precancy Checkup Leave
Better than the statutory requirement for certain kin	-	Funeral
Full salary	Half salary	Sick Leave
Full salary	Half salary	Menstrual Leave
Full salary	No pay	Miscarrage Leave

Item	Activities and Description	Number of Participant / Beneficiaries	Contribution / Supplement
Maternity Allowance (Company Issued)	We offer a 6-month maternity allowance in compliance with the Employment Insurance Act. CHT also offers additional monthly allowances totaling half the sum assured under the Labor Insurance Scheme.	116 persons	NT\$13,705 Thousand
Childcare Allowance (Company Issued)	Employees with children aged 0 - 6 years old will automatically receive childcare allowance of NT\$5,000 per year. It is raised to NT\$6,000 per year since September.	2,523 persons	NT\$14,668 Thousand
Sports Activity	Regional activities include 90 road running events, 383 hiking activities, 79 ball sports activities and 946 other activities (e.g. stair-climbing, health exercise, strolling, and health promotion lectures).	58 thousand persons	NT\$11,543 Thousand
ESOT	Improvement of employee welfare, enhancement of employee coherence, and sharing company achievements.	17,913 persons	NT\$2.4 Thousand/month per person
Dependent Education Subsidy	Twice a year (two semesters).	17,953 persons	NT\$80,786 Thousand
Wedding Subsidy	A wedding subsidy is available for employees who are to be lawfully married.	187 persons	NT\$467.5 Thousand
Childbirth Subsidy	Employees or their spouses are eligible for a childbirth subsidy.	374 persons	NT\$935 Thousand
Funeral Subsidy	A funeral subsidy is available in the event of the death of a parent, foster parent, step-parent, the spouse or a child of an employee.	677 persons	NT\$3,385 Thousand
Recreation and Sports Space	Includes an integrated stadium, swimming pool, tennis, badminton, basketball, and table tennis courts, multifunctional event space, karaoke room, and employee dormitories.	Total 13,103 square meters	

Welfare is provided for employees of Chunghwa Telecom, but not for those of subsidiaries.



Better Maternity Benefits than the Legal Requisites

We have been implementing an unpaid childcare leave system since 2006 to help employees juggle their attention between work and family. The employees who have taken childcare leave are entitled to receive a six months maternity allowance from the authority under the Employment Insurance Act. While six months expiry, the Company will further pay an additional childcare-subsidy of half assurance sum of Labor Insurance Scheme according to its policy. Employees of Chunghwa Telecom are also entitled to other privileges such as family care leave, paternity leave, menstrual leave, and a nursery room service, as well as epidemic prevention childcare leave pursuant to the government's epidemic prevention policy. In 2020, 71 employees applied for unpaid childcare leave; 116 employees applied for child-care leave allowances. NT\$13,705 thousand was paid out as child-care leave allowances.

Year	Item			Total
2020	The Number Qualified for UPL for Raising Children 2020(A)	852	369	1,221
	Number of Applications for UPL 2020 (B)	9	62	71
	Application Rate for UPL (B/A)	1.1%	16.8%	5.8%
	Number of Expected Reinstatement 2020 (C)	11	69	80
	Number of Applications for Reinstatement 2020 (D)	12	66	78
	Reinstatement 2020 (D/C)	109%	95.7%	97.5%
2019	Number of Reinstatement 2019 (E)	18	61	79
	One Year Retention after Reinstatement 2019 (F)	18	61	79
	Retention Rate 2019 (F/E)	100%	100%	100%

- The number of employees entitled to apply for a parental leave of absence in 2020 (A): calculated as employees who had applied for maternity leave and parental leave in 2018-2020.
- The number of expected reinstatements 2020 (C): The number of employees who applied from 2018 to 2020 and should be reinstated in 2019.
- The number of actual reinstatements 2020 (D): The number of employees who applied from 2018 to 2020 and were reinstated in 2020.
- Reinstatement rate: $(\text{actual number of reinstated employees that year} / \text{number of employees who should have been reinstated that year}) \times 100\%$
- Retention rate: $(\text{the number who continued working after reinstatement} / \text{reinstated number for the previous year}) \times 100\%$



Retirement Benefits

Employee requests for retirement are processed in accordance with the Chunghwa Telecom Employee Retirement Pension and Separation Guidelines, the Labor Standards Act, and the Labor Pensions Act.

- The Labor Standards Act: The Company makes monthly pension contributions of up to 15% of an employees' monthly salary to the pension fund. This fund is held under the auspices of the Labor Pension Supervisory Committee. The current balance of the pension fund account is 39.2 billion.
- The Labor Pension Act: The Company makes monthly contributions of no less than 6% of an employees monthly salary. These contributions are deposited in the employees pension account held by the Bureau of Labor Insurance of the Ministry of Labor, in accordance with the Contribution Rate Sheet approved by the Executive Yuan.

Monthly pension contributions were made in accordance with the Monthly Contribution Wages Classification Scheme published by the Ministry of Labor, subject to biannual adjustments.



Lifelong Learning and Training Programs

To help our employees to adapt and create quality lives after retirement, Chunghwa Telecom Training Institute was commissioned to organize "Care Program for Retirees' Sweet, Happy Lives". A total of 12 sessions were organized with 748 person-times involved in 2020. Also, we continued to contribute to "Chunghwa Telecom Retirees Association" with an amount of NT\$4.5 million to support them to organize relevant activities. We also donated NT\$1.5 million for travel activities and NT\$300,000 for the meal expenses of all volunteers across branches during the Lunar New Year.

To help facilitate the transfer of knowledge and experience, we have stipulated "Consultant Recruitment Guidelines" to hire paid consultants and honorary consultants. Managers at a position of Senior Executive Vice President or above, or the head of Level-1 institutions, may be hired by Chunghwa Telecom as paid consultants after retirement. Paid consultants shall serve a term of no more than one year, and assume honorary consultants upon the day after one-year period has expired.



Human Rights Value Protection

We proactively monitor and protect human rights. We respond to the UN Declaration of Human Rights and the ILO Convention on the elimination of all forms of discrimination and the prohibition of forced and child labor. We also respond to the UN International Covenant on Civil and Political Rights and the International Covenant on Economic, Social, and Cultural Rights, dedicating to promote human rights awareness and assure respect and fair treatment to all stakeholders.

CHT is a member of the International Telecom Union and we fully comply with International Radio Regulations. The regulation concerning: freedom of communication, transparency in global roaming charges and competition, support of Telecoms in developing nations, telecom services for persons with disabilities and the freedom of speech over telecom networks. In addition, we support the UN Guiding Principles on Business and Human Rights by conducting a human rights due diligence investigation and make sure that each human rights issue in the operational value chain is evaluated and we maintain all risk at a minimum level.

Human rights issues include anti-discrimination, gender equality, freedom of association, collective bargaining, child labor, forced or compulsory labor, and aboriginal rights.

Subjects of the Value Chain	Location / Amount	Evaluation Mechanism	Evaluation Percentage	Percentage at Risk	Description / Boosting Mechanism	
 CHT owned institutes at 1 to 2 lower levels	28	<ul style="list-style-type: none"> Labor-management meeting Collective agreement Workers' Union meeting Annual human rights event inspection 	100%	1.6%	<ul style="list-style-type: none"> Labor-management meeting Collective agreement Workers' Union meeting Annual human rights event inspection 	
 Subsidiaries	21	Annual CSR implementation inspection	100%			
 Re-investment Companies	16	Annual CSR implementation inspection	100%	2.5%	Some institutes were in violation of regulations. Suggestions for improvement have been provided and will be tracked and managed continuously.	
 Upstream and Downstream Suppliers	Tier 1	2,078	<ul style="list-style-type: none"> CSR survey inventory CSR second party audit Occupational health and safety audit 	100%	0%	<ul style="list-style-type: none"> Some suppliers had violated the labor laws and regulations. Continue to follow-up of suppliers with identified risk to see if improvements have been made through Supplier Conference and other channels.
	Critical Tier 1	192				
	Critical Tier 2	28				
 The Public	All consumers	<ul style="list-style-type: none"> Diverse compliant channels (including discrimination and harassment) Satisfaction survey Personal information and privacy protection inspection Minority group service mechanism 	100%	0%	<ul style="list-style-type: none"> No discrimination or harassment, or any invasion of CHT customer privacy or misuse of personal information in 2020. Continue to promote the 5I SDGs Initiative to ensure information equality among the groups. 	

Human Rights Material Risk Issues



Local Human Rights

To fulfill the concept of anti-forced labor and appropriate working environment, we required the bidders to sign a Declaration of Minerals as Conflict-Free during procurement. We evaluated the suppliers to determine if raw materials derived from human rights high-risk areas like the Democratic Republic of the Congo to avoid harm to the basic human rights of local residents while we providing ICT products and services. We depend on demand and require the suppliers to provide certification of material resources, third-party verification or accepted auditing to confirm no related violations.

We also required that all suppliers complied with the Restriction of Hazardous Substances Directive (RoHS) to prevent hazardous substances from the source endangering local employees, the environment or customers.



Employment Human Rights

We use the Occupational Health and Safety Management System (OHSAS 18000/ISO 45001) to avoid potential risk and have systematically fulfilled employee safety and health management. In addition to compliance with the safety and health-related regulations toward high-risk tasks, we have also enhanced risk control. We continue to improve the working environment and act in regards to safety and health facilities and measures to actively ensure employee protection.

Sometimes customer service personnel encounter irrational requests and even personal abuse from customers in the provision of our services. We established an SOP for employee response and acted at a critical level in certain circumstances. Legal assistance can be authorized to aid in the event of serious offenses and to prevent illegal practices. CHT adopted the ISO 10002 quality management system in 2011 and have a certified and flawless customer service procedure and management mechanism in place. We regularly offer pertinent training courses in customer relations, the management of emotional stress, and occupational hazard prevention. While building up professional capability, we positively avoid pressure to mental and physical health problems on customer service personnel.



Information Equality

CHT is creating a free and open information sharing environment without technological boundaries that can be shared with everyone. Such a system inherits culture, extends education, promotes industry, and upgrading art with a connection to the universe of the Internet. Digital technology can be beneficial to everyone irrespective of age, social standing, wealth, geographical location, or education.

We base our approach on the characteristics of the ICT industry and the spirit of "where the value is where the responsibility lies" in our work with the communities in Taiwan. Our main objective is to minimize the digital divide and create digital opportunities, CHT watches the trends of this digital divide and offer solutions that facilitate social innovation and digital inclusion. We spare no effort in corporate volunteer, participate in community services, and proactively assist communities in the creation of digital opportunities.



Customer Human Rights

Due to the nature of our industry, in addition to establishing information security management applicable to the enterprise operation, we also implement measures to safeguard our customers' personal information. We implemented information security in compliance with the international standards ISO 27001 and BS 10012 and carried out regular supplier auditing and supervision through employees or a third party. We also carried out vulnerability scanning and the testing of all equipment and software from outside suppliers to ensure there were no back-doors or malware.

Besides acquiring the customer's agreement before the collection of any personal information, we established the internal Security and Safety Principle of Customer Information Re-use. Related information also complies with the principle of no names are revealed to prevent the downloading of personal information and avoid leakage or disclosure.

To prevent damage from the products or services to stakeholders, the measured values such as that of environmental electromagnetic wave should be in line with the "recommended non-ionizing radiation exposure limits for the general public in non-occupational environments" released by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). Citizens may apply for the free base station electromagnetic wave measuring service to reduce the concerns in health and safety of the people in communities.

Safeguarding Consumer Rights and Interests

Digital Transformation of Diverse Virtual and Physical Channel Services

Chunghwa Telecom values consumers opinion. In addition to conveying technical features of the products and services we offer; we look at the matter from the point of view of the consumer. We provide consumers with the most comprehensive, high quality and efficient services putting a wide and diverse range of service channels at their disposal. By the end of 2020, we had 455 direct physical channel service stores, and 245 franchised stores, a total of 700 service outlets that provide convenient services for all consumers in cities, or even in remote areas in Taiwan.



Ethical Marketing and Information Transparency and Friendliness

We provide a handbook about products and services for consumers that details product characteristics and applications, consider the negative aspect of overuse, and has friendly reminders provided while marketing. In addition, Chunghwa Telecom has set up the “Channel Sale Items Management Guideline” and “Channel Sales Items Management Implementation Procedures” to make the display of sales items and operation management consistent throughout all the service and business locations. This ensures a positive service environment for consumers. These are vital for maintaining a superior and professional image as well as the service quality at Chunghwa Telecom. No violations of health and safety and product labeling was reported in 2020.



Green Services with Environmental Protection and Innovation Combined

In 2018, telecom combinative stores were established in Zhongli, Miaoli and Hsinchu, including cafe, 3C and an experimental display. The green stores capabilities were also developed and energy-saving household appliances such as electric scooter, TV, refrigerators, and air purifiers, promoting green business development and offering customers the one-stop shopping and whole-new store service experience.

Category	Description
Customer service Kiosks	These serve as the “Database” for business and engineering-related information. When new information is received, it will be verified according to an SOP. Afterward, an FAQ will be further drafted and uploaded to the customer information station for use by the Chunghwa Telecom customer service personnel (at service outlets and call centers) and the Internet counter.
Consumer Hotline	Provides complete information on the features of products and services, and related special offers.



Proper Management of Personal Information

We highly value the personal data and privacy rights of our customers. The collection, processing, use, and protection of personal data and privacy are conducted within the scope allowed in the “Privacy Protection Policy”, “Personal Data Collection Notice” of respective businesses as well as relevant provisions in “Personal Data Protection Act”. Personal data and privacy shall not be disclosed to a third party by means of exchange, lease, or others at will.

Pursuant to the laws and regulations as well as international standards, we established rigorous personal data and privacy protection management mechanism, carry out risk assessment prior to business promotion, and construct strict protective measures and safe environments to avoid stole, alter, or illegal use of customers

Collection, Processing, and Use of Customers’ Personal/Private Data

Type and Content of Data Collected

When customers use services of Chunghwa Telecom, we collect their personal/private data, including account, location, browsed webpages/mobile app, etc. out of the regulatory requirement for identity verification or the needs for service provision.

Customers may access with ease from multiple channels (e.g. website, app, store, and customer service hotline) and learn about the types of data and methods we collect, process, use personal data and disclosure thereof to a third party, as well as the rights customers are entitled to exercise, including inquiry, request to stop collecting, processing, and using, as well as erase.

Data Use and Protection

To elevate customers’ experience and maintain customer relationship, we use customers’ data for analyses so as to provide optimized services and promotion information catering to our customers, whereas the customers may request stop such use at any given time.

We fully monitor the use of customers’ personal data and implement rigorous protection measures to prevent any unauthorized access, disclosure, use, or tampering of personal data in order to protect the security and rights of customers’ personal/private data. The percentage of Chunghwa Telecom’s secondary use of customers’ data in 2020 was 84.4%.

Provision of Personal Data

We do not disclose customers’ personal data to a third-party by means of exchange, lease, or other alternatives at will, unless consented by the customers or specified otherwise in laws and regulations.

Application by Law Enforcement Agencies

In the event that any government agency or law enforcement agency sends Chunghwa Telecom a letter to access or inquire information of customers for the protection of public security and against crimes, in compliance with relevant laws and regulations, Chunghwa Telecom shall provide customer information thereto accordingly after a rigid examination of such application, or reject application that are not in line with regulatory procedures or criteria. The rate of the provision in 2020 was 92.5% with a rejection rate of 7.5%, most of which were primary due to inconformity to the relevant laws and regulations or source data error.

Compliance with the Epidemic Prevention Effort of the Government

In response to the COVID-19 epidemic, in compliance with the epidemic prevention needs of the government, and pursuant to “Communicable Disease Control Act” and “Special Act for Prevention, Relief and Revitalization Measures for Severe Pneumonia with Novel Pathogens” on the basis of advancing the public interests for all, the telecom service providers in Taiwan are liable to provide necessary information to Taiwan Centers for Disease Control (Taiwan CDC), Ministry of Health and Welfare, so as to assist the government to enforce the home isolation policy and prevent the disease spread. We safeguard our customers’ privacy with a rigid management over data security.

data. Also, we conduct comprehensive trainings for internal personnel regarding personal privacy protection in line with the requirements of the competent authority in order to protect customers’ privacy.

We continue to improve our operational procedures, elevate our information technology, ensure implementation of personal privacy protection and security measures across all elements in operations, track the results of various performance indicators regularly, and have audits internally and externally annually as well as pass inspections of competent authorities and third-party certifications (ISO 27001 / ISO 27011 / BS 10012 / CSA STAR Certification remain effective), so as to offer consumers best cybersecurity and personal/private data protection.

Personal Data and Privacy Risk Management

The personal data and privacy risks management mechanism of Chunghwa Telecom is based on the identification of risks brought by threats, internally and externally, to the organizational operations and businesses, including changes in the laws and regulations and international standards, requirements of the competent authorities, trends of cybersecurity threats, and check results. It inventories significant risk issues of the year, followed by the analysis of the impact levels and likelihood of risks, evaluation of the priority for risk handling, formulation of objectives and measures for risk handling, and regular review and evaluation of indicators attainment.

Personal Data and Privacy Protection Consultation and Grievance Channel

Regarding personal data and privacy protection issues, we have personnel trained in Personal Data Protection Act to provide professional consulting and grievance channels to our customers.

Grievance Hotline: + 886 800 080 090

Suggestion Mailbox: <https://www.cht.com.tw/zh-tw/home/cht/service/emailus>
Should customers find their personal data and privacy use issues unresolved within 30 days, they could also reach us through:

Recipient: Chief Information Security Officer, Chunghwa Telecom Co., Ltd.

Address: No. 21-3, Section 1, Xinyi Road, Zhongzheng District, Taipei City 100, Taiwan (R.O.C.)

Phone: +886 2 2344 6789



We have implemented the notification, response, and improvement mechanism and its related operation procedures for privacy data breach incidents. Upon detection of potential privacy incident, it is required to complete the reporting in accordance with the report window list. In the event of major incident, it will be escalated to the Cyber Security Department at the Headquarters and the CISO, while a response team will be formed within a specified window to enact emergency response.

Upon the privacy incident verified, the Company shall conduct incident investigation and analysis to find the root case, define scope of damage, preservation of relevant evidence, while take emergency response measures. We monitor the changes in public opinions and client grievance, learn about the personal data illegally collected, processed, or used in the incident, prevent further damage, and notify parties affected and the competent authorities. Where the incident causes damage to clients’ rights, Chunghwa Telecom will provide compensation or legal support to the parties involved to assist and protect our clients’ rights to the best of our ability.

There were 8 complaints over “alleged information breach cases” filed via the customer hotline in 2020, of which 1 was notified by the National Communications Commission (NCC) and 7 submitted via the customer service hotline (4 more cases compared with those in 2019, accounting for 0.000018% of the customer hotline service provided of the year). All the cases were investigated and verified that there had not been any fact of personal data and privacy breach.

[For more information on the cybersecurity and personal data and privacy protection of Chunghwa Telecom, please visit our website](#)



Refined Customer Service

Chunghwa Telecom provides services which are refined, thoughtful and professional to build warm atmosphere around customer relations. We use big data analysis to learn the true needs of customers so that we can offer thoughtful and customized services and products. CHT's positive approach cultivates both favorable impressions and brand loyalty. We set high standards for our customer service hotline. To ensure quality service, we sought multiple international certifications, including ISO 9001, ISO 10002, BS 10012, and ISO/IEC 27001. In recent years, we have been using big data analytics to identify customers concerns and to improve the overall user experience. Through sincere communication and system improvements, we are able to create additional value for our customers. CHT has been presented with "Personal Information Management Awards" by SGS-Taiwan, an international and external third-party verification entity, in 2020.



Chunghwa Telecom Customer Service Mechanism Overview

Category	Description																
Customer Service Location / Scale	The Company has 15 customer service centers, and the number of customer service personnel averages 2,500																
Multi-Channel Customer Services	<ul style="list-style-type: none"> • Webchat • Social media, "Chunghwa Telecom Dr. Q Fan Page" • Web customer service center • Mobile customer service center • Mobile App • SMS 																
Training Result	<p>To refine our customer-centric approach and devotion to the provision of the most thoughtful services, while taking the COVID-19 impacts into consideration, we utilized Microsoft Teams in 2020 to throw three sessions of remote training program online, "Driving Sales with Services", with zero students and zero clustering on site. A total of 150 seed personnel were trained with an average training hour of 6 hours per capita. CHT holds a very high standard for customer representatives. Besides the basic requirement of tone and manners of speech, we place even more emphasis on professional knowledge and competence. In 2020 alone, 9,853 employees received 44,368 hours of training combined.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Total Participants</th> <th>Total Training Hours</th> <th>Average Training Hours</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>9,853</td> <td>44,368</td> <td>4.5</td> </tr> <tr> <td>2019</td> <td>5,885</td> <td>127,511</td> <td>21.7</td> </tr> <tr> <td>2018</td> <td>5,684</td> <td>141,207</td> <td>24.8</td> </tr> </tbody> </table> <p>Due to the pandemic impact in 2020, TTI reduced offline education programs and adopted online programs with shorter hour per session instead. Hence, the trained participants (person-times) increased while the total training hours decreased.</p>	Year	Total Participants	Total Training Hours	Average Training Hours	2020	9,853	44,368	4.5	2019	5,885	127,511	21.7	2018	5,684	141,207	24.8
Year	Total Participants	Total Training Hours	Average Training Hours														
2020	9,853	44,368	4.5														
2019	5,885	127,511	21.7														
2018	5,684	141,207	24.8														

Customer Service Excellence Awards (CSEA)

"Best Intelligent System Application Enterprise Award"

– Self-developed IVR voice navigation and verification application

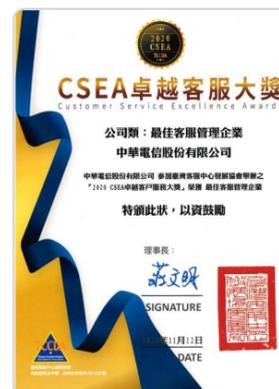
To offer a better service experience for our customers, CHT has proactively develop innovative and smart customer service applications. In 2018, CHT introduced the text-based customer service chatbot and successfully built the human-robot collaboration model. In 2020, the IVR voice navigation and verification came online. It is an AI chatbot, developed by CHT its own, equipped with five core competencies, including voice recognition, semantic comprehension, speech synthesis, automated feedback learning, and flexible adjustment mechanism, intended for the voice navigation and verification for the incoming calls from customers, which significantly improved the efficiency of our customer service.



"Best Customer Service Management Enterprise"

– supporting the government's epidemic prevention works with ICT

Ever since the outbreak of COVID-19 in the early 2020, we have been supporting the government's epidemic prevention works with information communication technology, including designing and providing the quarantine cellphones, developing Digital Fence, analyzing the footprints of epidemic development with big data, and other innovative measures, which effectively helped the government in epidemic control. Starting from the Lunar New Year holidays, the workforce of four customer service centers were mobilized, along with other resources like venues, seats, systems, and electric circuits. Also, we adjusted the IVR voice service on the fly, rapidly established the Knowledge Management Database, and initiated active care for home quarantine. As a result, we set the record of answering up to 47,000 calls in a single day. By helping the Taiwan CDC to cope with the calls to 1922 toll-free hotline, we fully demonstrated our ability to react.



Commendation for Best Customer Service Personnel

To inspire passion and professionalism among customer service officers, we reward customer service personnel who receive praise from customers, and accept these credits as part of their performance appraisal as an excellent service quality.



KPIs for Customer Service Hotline

In 2011, Chunghwa Telecom became the telecom carrier to have all its centers certified for the ISO 10002:2004 Customer Complaint Management System. The Company views customer complaints as opportunities to make ongoing improvements. The resolution of customer complaints and dissatisfaction is rule-based and they must be settled within 3 working days. This approach ensures the continuous improvement of service quality. In addition to the customer service hotline, consumers may also use the corporate website or Representative Line authorized by the President (02-23446789) to raise complaints directly to the assistance of the senior executive.

KPI	2018	2019	2020
Customer Service Response within 20 Seconds	73.42%	73.37%	68.98%
Service Satisfaction (5-point scale)	4.71	4.74	4.75



Customer Satisfaction Survey

We conduct a broad variety of satisfaction surveys to identify the issues of most concern to consumers and their expectations. We use these findings to guide future improvements. After each survey, the opinions and suggestions are conveyed promptly to product or business personnel (including Risk Management and the Public Relations Departments) using the consumer feedback system. Furthermore, consumers opinions are brought to the attention of the senior manager of the product and customer service departments for discussion at monthly meetings to ensure that the consumers expectations receive proper consideration. Regarding the IPA (Importance-Performance Analysis) items belonging to the fourth quadrant (high importance and low performance) after a review of the results of the annual satisfaction survey, we will request that the relevant functional units conduct further analysis and propose measures for concrete improvement every year. There will also be a follow-up in the next quarter to keep track of the progress of any corrective action found necessary.

Customer Type	Survey Method	Survey Result (10-point scale)
Large Enterprise	Designate an external market survey company to conduct consumer satisfaction survey	9.09
Medium and Small Enterprise		8.72
General Customer		7.77



1Gbps Network Speed across All Townships 100 Mbps across All Villages

We are constantly expanding our mobile network. We have the most 4G cell towers and the highest 4G signal coverage in Taiwan. According to test results published by the government, our network speed is the fastest across all 22 administrative districts in Taiwan. Our network quality has been unanimously commended by domestic and international mobile analytics organizations, including OpenSignal top 4G download speed and best overall download speed and Speedtest fastest mobile Internet speed in Taiwan.

As always, customer satisfaction is our top priority. We will continue to improve our mobile network to provide customers with top-notch services. To ensure the equal sharing of information, in addition to a positive strengthening of mobile Internet quality in populous metropolitan areas, we have paid more attention to signal coverage in remote areas. We have achieved 100% total 4G coverage in all towns.

To promote equal digital rights, we support the DIGI+ Program initiative introduced by the Executive Yuan. We planned to increase 1Gbps network coverage to 90% by 2020, 2Gbps network coverage to 90% by 2025. Providing ultra-broadband Internet in remote areas to balance urban-rural development, encouraging innovation in the digital economy, creating value added in the industry, and, in turn, stimulating overall economic growth. In 2020, we invested NT\$200 million in 80 network improvement projects, and the following projects were successfully completed: 1Gbps network speed across all townships, 100 Mbps across all villages, increasing Wi-Fi hotspot bandwidths, improving 4G cell towers in rural areas, etc.

Expand Wireless Hotspots

We have also supported the government initiative for the promotion of free wireless Internet services nationally. Through a reasonable Wi-Fi rental package available, as well as a robust user authentication platform and a nationwide maintenance/monitoring system, we have helped the government deploy free Wi-Fi hotspots nationwide.

Our contributions to social events in 2020 included working with local county and city governments to provide Wi-Fi hotspots and enable Internet access at festive gatherings and international sports events. We installed 81 hotspots for New Year's Eve festivity, 19 for the Lantern Festival and about 31 for other activities. The Company participated in 20 festive occasions, built 131 hotspots in total, and spent more than NT\$1.02 million.

Enhanced Disaster Response and Communication Coverage

Chunghwa Telecom continues to install repeaters, backup wireless routers, and backup power supplies to increase reliable transmission capacity in remote areas. By increasing the capacity of backup batteries to more than 72 hours, the Company ensures that residents in remote locations can stay connected even when main power has been disrupted by a natural disaster.

Item	Description
Responses Measure	We conduct annual emergency drills for a wide number of different events, from the coordination of network resources and equipment to emergency repairs. Our base stations have been deployed in a diversified manner and are covered by robust backup plans so that failure of circuitry, power or equipment at any base station will not disrupt the operation of other nearby base stations.
Occurrence of Disaster	If communication is severely disrupted in the unfortunate event of a natural disaster, we take contingency measures, that depends on the actual circumstances, to maintain communication between the disaster locations and the outside world. These can include microwave radio, satellite transmission, portable base stations, etc.

Disaster Report and Upgraded Safety

In efforts to minimize the impact of disasters by prompt messaging, the Chunghwa Telecom self-developed "Emergency Response SMS System" sent out more than 60,000 SMS alerts in 2020, and apply to Directorate General of Highways' "Traffic Conditions Alert System," and Atomic Energy Council's periodic "Nuclear Safety Drills," and the National Fire Agency's disaster prevention exercises, successfully playing its part in disaster prevention information notification.

In addition, a Public Warning System (PWS) has been established to support the national policy of emergency message dissemination about typhoons, earthquakes, thunderstorms, landslides, roadblocks, reservoir discharge or an outbreak of disease, fast and correctly to specific regions simultaneously, assisting government agencies and the general public improving their disaster prevention awareness and capabilities. As long as a mobile phone is open to the PWS function, all our customers will receive messages about disasters. The PWS issued over 2,400 times of emergency warnings across Taiwan in 2020. In the early stage of the epidemic outbreak, 4 warnings were issued that effectively helped the government agencies to communicate the relative policies and orders as well as dispersed the crowds.

Major Service Interruptions in 2020 and Countermeasures

- 1. Overview of the Obstacle:** The obstacle with SVG equipment at CHT KLSY Branch on September 12 affected the fixed line communication of 15,585 households.
- 2. Reasons for the Interruption:** Two SVG L2 SWs were down due to lightning strikes that led to anomalies of system operation.
- 3. Improvement Measures:** Two L2 SWITCH spares stored at all branches in case of emergency. Continuous enhancement of maintenance measures and promotion for preemptive centralized monitoring.
- 4. Implementation Status:** All the L2 equipment subject to the risk of lightning strikes replaced to enhance the protection against lightning strikes. Completed L2 SWITCH emergency backup SOP and education training to enhance the emergency response capability of staff.
- 5. Outcomes:** With the ceaseless improvement of maintenance mechanism by the network maintenance department, the average number of obstacles encountered by users has been improved from 0.0007 in 2019 to 0.0006 in 2020, while the average time for obstacle removal improved from 0.138 minutes in 2019 to 0.096 minute in 2020.



The Alleviation of Public Concern about Electromagnetic Waves

According to a report by the World Health Organization (WHO) and related scientific research, exposure to base stations and Wi-Fi signals does not affect human health. NCC also declared that all the powers of the electromagnetic waves from the domestic base stations are within the threshold of international standards and thus cause no harm to human body. Therefore, the Environmental Protection Administration of the Executive Yuan do not list base station as a source of environmental pollution.

For this issue, Chunghwa Telecom ensures strict compliance with the authority's safety standards when constructing telecom infrastructure. The Specific Absorption Rate (SAR) of all mobile communication products we purchased have complied with the restrictions of the National Communications Commission (NCC). Given the scarcity of suitable base station locations and the need to assure consumer rights to quality communication, we will strive to comply with regulations by taking the approved precautions at all stages of installation. In 2020, Chunghwa Telecom incurred NT\$0.5 million in fines and administrative penalties associated with base stations. These violations occurred as we sought to address consumers' demand for good reception and concern towards negative health impacts from base stations.

The measurement of the electromagnetic radiation in the environment conforms to the standard of the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which must be lower than 0.45 $\mu\text{W}/\text{cm}^2$ at 900MHz and less than 0.9 $\mu\text{W}/\text{cm}^2$ at 1,800MHz. Any resident who has concerns regarding base stations near their home can request a free complimentary measurement of the strength of the nearby electromagnetic waves by calling 0800-580-010.

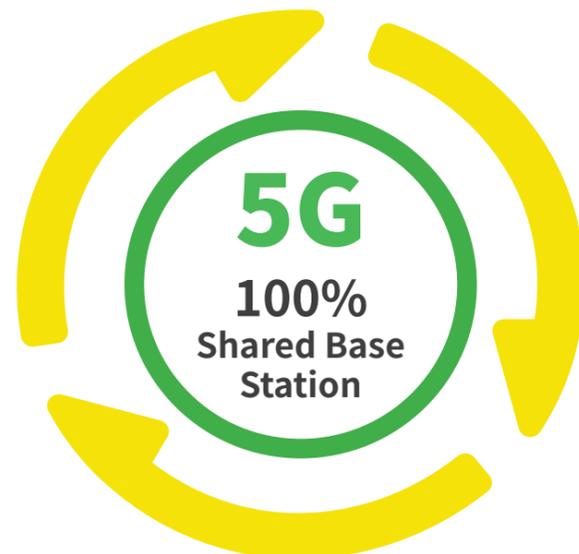
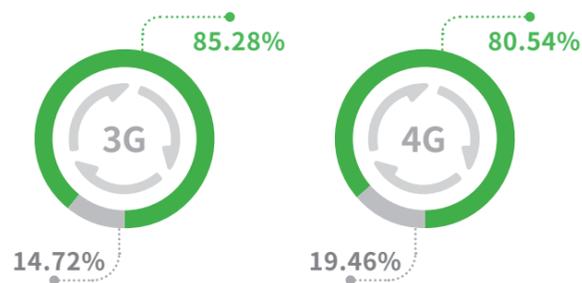
Advocate the Accurate Understanding of Electromagnetic Waves

Chunghwa Telecom has been working closely with the Taiwan Telecom Industry Development Association to convey to the public the correct information about electromagnetic waves, by organizing conferences and issuing promotional materials.

1. The Company joined NCC and 10 county/city governments nationwide in hosting 12 seminars on the topic of electromagnetic waves, 24 local infrastructure promotion forums, and 125 free complimentary electromagnetic wave measurements have been completed to date.
2. Local government bodies were issued some promotional material and pamphlets about electromagnetic radiation, which were distributed to the public during various activities to promote proper understanding.

Types of Base Stations Installed by CHT

Shared Base Station Independent Base Station



1. All these are established on the existing buildings.
2. The 5G services kicked off on July 1, 2020.

Telecom Services and Promotions Fraud Prevention

In 2007, Chunghwa Telecom assisted the government in establishing the 165 Anti-Fraud Consultation Hotline to support the police and authorities in the defiance against fraud.

Item	Description
Resources Committed	<ul style="list-style-type: none"> An average of 10 customer service personnel joined the service every month to work with the Criminal Investigation Bureau in a concerted front-line duty effort from Monday to Friday. "Disconnection Service Fraud Prevention System" offers information on some suspected telephone gimmicks used for cheating customers and a timely settlement of the problem. An average of 3.1 customer service person participated in the program each month.
Prevention of Fraud on Network / Mobile Devices	<ul style="list-style-type: none"> A two-way, SMS-based authentication system was introduced for small payments. A scam alert was added to all two-way SMS authentication messages.
Progress Description in 2020	<ul style="list-style-type: none"> The hotline received 184,589 calls, and 19,579 cases of fraud were referred to the authorities. The Company assisted the Criminal Investigation Bureau, National Policy Agency in disconnecting 1,582 phone numbers, and successfully stopped 2,287 scams.

Reducing Negative Impact of the Internet

We continue to minimize negative material circulating on the Internet through diverse action plans, and endeavor to provide consumers with a healthy, trouble-free network environment.

Item	Description
Anti-Virus and Anti-Hacker	A HiNet mailbox gives customers access to a free webmail service. A simple setup, allows users to decide if questionable e-mail will be automatically deleted in the future. We continue to monitor the formulation of the "Regulations for Commercial Electronic Spam Mail", in which add the management obligations to the Internet Service Provider (ISP).
Adult Content	Provides K12 Mailbox Forced Isolation, the HiNet Adult Content Gatekeeper, and the Mobile Adult Content Security Guard, keeps children and teenagers out of harmful websites.
Usage Time Control	The HiNet Online Time Management Service and mobile phone "3G Talk without Worries" programs, giving parents effective control of the mobile phone and Internet use.
MOD Parental Lock	The Parental Lock can be set at protected or parental guidance. Settings are in effect immediately once the password has been entered. The parental lock can be used to protect children from harmful or bad content.

S Strategy

Facilitation of greenness in the ICT industry (Green of ICT) and overall greenness of society through ICT (Green by ICT)

M Management

Instituted the Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd.

Instituted the Chunghwa Telecom Co., Ltd. Procurement Grievance Procedures

Collect the suppliers information on climate change and carbon emission at least once a year

A Action

Efficient energy management using EARTH

The launch of the 5G initiative in pursuit of profit, environmental sustainability, and social responsibility

Became **the first** telecom service provider in Taiwan to implement:

- Collaboration with the Sustainable Alliance for Low-carbon Economy (SALcE) to issue the Sustainable Partnership Certificate
- Incorporation of the ISO 20400 Sustainable Procurement Standard
- ISO 14064 certified
- Joined the Carbon Disclosure Project (CDP) Supply Chain
- "TCFD Climate-related Financial Disclosures" certification obtained

R Response

CHT CSR Supplier Conference / Sustainable Environmental Visit

Targets low-carbon industries and promotes solar power

T Target

Completion of the first smart green-energy staff dormitory in Taiwan by 2021 (50% progress made)

Promises to Reach the Following Targets in 2023

- The capacity for renewable energy constructed from proprietary was **3,975.5** kWp
- Taking 2017 as the base year, a **10%** reduction of greenhouse gas emissions in our buildings
- Taking 2017 as the base year to cumulatively save **10%** of the energy by 2023 pursuant to the generator room energy-saving program

I Indicator

GRI

GHG Emissions **790,320.9986** t-CO₂e

CHT

A CHT photovoltaic system with a total capacity **2,783.665** kWp

CHT

Nearly **100** suppliers receiving ESG education and trainings

CHT

Implement the "Suppliers CSR Second Party Audit" on **20** suppliers

CHT

105 Taiwan Renewable Energy Certificates (T-REC) acquired

The Green Corporation Pioneer



The SDGs CHT contributes to in this section

5G Green Enterprise

Although telecom is regarded as a low-polluting industry, Chunghwa Telecom is well aware of the environmental impacts associated with energy, resources, waste, maintenance, purchasing and other aspects of our operation.

We have devised a new set of Sustainable Environment Development Strategy and Target Plan that outlines our overall strategy and roadmap for sustainable environmental development. In addition, budgets will be provided in each year to support action plans.

Green Operations

(1G)

- A self-developed EARTH system for **100%** control of environmental information
- The **sole** telecom carrier that has obtained the ISO 14046 certification in the industry of Taiwan
- Received ISO 14001/ISO 50001 and ISO 14064-1 certification at all our business locations
- "TCFD Climate-related Financial Disclosures" certification obtained

Green Energy

(2G)

- Self-constructed photovoltaic systems reached a total capacity of **2,783.665** kWp
- Acquired **105** Taiwan Renewable Energy Certificates

Green Stores

(3G)

- Transformed **455** service centers into Green Stores
- Syntrend Store in Taipei as the **sole** net-zero carbon store in the industry of Taiwan that obtained ISO 14067, EPA's Service Carbon Label, and PAS 2060 carbon neutrality certification
- Promoted paperless services and accumulated a saving of **590** million sheets of paper per year

Green Supply Chain

(4G)

- Became the **first** telecom carrier to promote supply chain sustainability management
- Formally incorporated the ISO 20400 Sustainable Procurement Standard
- Participated in the CDP Supply Chain Project to expand the efficiency of carbon management

Green Procurement

(5G)

- Reached a total of NT\$**904** million in green procurement in 2020
- Reached **1.08%** of total procurement as green procurement yearly

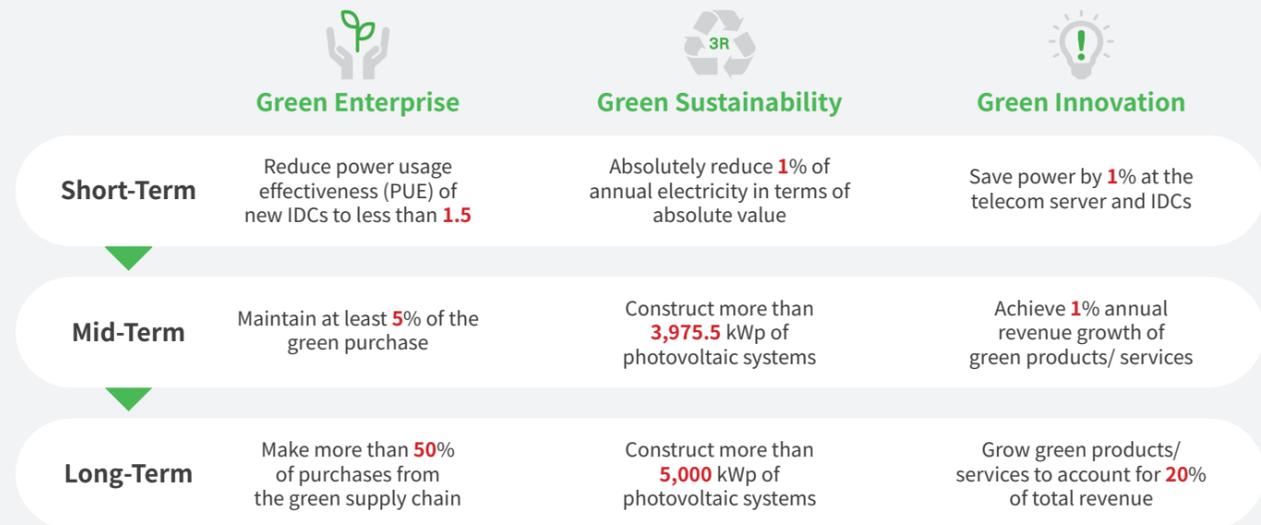
The certification of ISO 14001 is effective till 2023/12/24, while that of ISO 50001 is till 2022/12/17.



Co-construction of the Largest Solar Power Plant in Yilan in 2020

Working with VITEC ENERGY TAIWAN CO., LTD., we completed two solar power plants in Yilan County, for Alchemy Steel Inc. and Yi Lian Steel Manufacturing Co., Ltd. respectively. With an installed capacity of 3,000 kW in total, it is estimated to generate energy up to 3 million kWh per year while reduce approximately 1,600 tonnes of CO₂e annually, which is close the amount of carbon sequestered by 4 Daan Forest Parks. In the future, we shall continue to expand the solar power projects in Yilan. From development, planning, installation to maintenance, we manage the engineering quality along the way, so that more enterprises may join the green energy business together.

To fulfill our green commitment and embrace the world’s green challenge, Chunghwa Telecom has adopted a “Green Enterprise, Sustainability and Innovation Strategy” with the introduction of 5G (Green): Green Operation, Green Energy, Green Stores, Green Supply Chain, and Green Procurement, aiming to address financial success, sustainability and social responsibility.



((1G)) Green Operations

Chunghwa Telecom has set a goal to become a sustainable Green enterprise, and has made environmental issues an incorporated part of business operation and management. We hope to play a more proactive role in issues such as energy and climate change. By improving energy efficiency and exploring eco-friendly products and services, we are confident of our potential to inspire a new generation of low-carbon industries.

Environment ARTificer THEurgy (EARTH)

We developed the Environment ARTificer THEurgy (EARTH) system in 2008 to manage resources and protect the environment more efficiently as well as to reduce spending on energy consumption. EARTH system features include:

- Energy Saving and Innovation: Energy savings and innovation initiatives have been uploaded and implemented in all departments to encourage employees to learn from each other.
- Performance Evaluation: Performance evaluation is conducted systematically to encourage employees to contribute to environmental sustainability actions.
- Power Management: Request centralized payment of electricity bill; there are more than 64,710 electricity accounts and 2,918,907 units of electricity payment data under management.
- Water Management: Request centralized payment of water bill; there are more than 1,298 water accounts and 126,142 units of water payment data under management.
- Carbon Emission Management: This provides a carbon verification form and the results were greatly enhanced as 300 man-day operations.
- Fuel Management: Fuel use data for hybrid and ordinary vehicles were analyzed to improve energy efficiency and reduce carbon emission.
- Corporate Tree Planting: Document type, number, management department and location of trees. There are over 251 varieties of tree and 67,350 tree data saved in the EARTH database.
- Recycling Management: Document type, volume of recycled material and the recycling management department. We have recorded 22 types of recycling and there have been 18,188,291 entries made.

Green Environmental Hostels

Chunghwa Telecom Hostels provide accommodation for employee business or leisure travel. In response to environmental protection and personal hygiene, the hostels do not provide disposable, or consumable items or towels. They also take energy-saving measures such as solar water heating, air conditioning using heat pumps and LED lighting. 19 hostels had been certified as Environmentally Friendly Accommodation by 2020.

Ecotourism

Chunghwa Telecom hopes to provide eco-tours that are both educational and entertaining for our employees, so that they understand concepts of extreme weather, responsible tourism, respect for nature and the rights of local residents. We hold regular company eco-tours with the hopes of incorporating environmental education into traveling and daily life. We held 102 tours in 2020, costing a total of NT\$54,283 thousand with 15,209 participants.

Environmental Management Expenses

Item	2018	2019	2020
Environmental management expense (NT\$ thousand)	319,637	328,558	329,126
Accounted percentage of turnover (%)	0.15	0.16	0.16

Building the First Solar-powered Parking Lot in Response to the Green Energy Policy

In response to the government’s green energy policy and the realization of Nuclear-free Homeland by 2025, Chunghwa Telecom acted in accordance with the “2020 Photovoltaic 6.5GW Compliance Plan” in the photovoltaic promotion plans for energy transition of MOEA, building the first solar-powered parking lot with the features of power generation and car park in the Yunlin Technology-based Industrial Park. Generating 575,000 kWh of green energy per year, it effectively reduces the CO₂ emissions by 293 tonnes, which is equivalent to the effect of 30 hectares of afforestation. A total of 200 parking spaces are offered to the employees working in the adjacent businesses and meet the demands for parking in the Industrial Park. It comes with the advantages of environmental protection and long-term investment returns. In the future, we shall introduce intelligent parking management equipment and solar-powered LED guidance lights for parking in succession in order to build a significant landmark in the Industrial Park.

((2G)) Green Energy

In response to the climate change, Taiwan has planned to raise the ratio of renewable energy from 6% in 2017 to 20% by 2025 so as to reduce CO₂ emissions. Chunghwa Telecom has been positively supporting the government policy and applying its extensive ICT background knowledge in the construction of solar power stations. By the end of 2020, the Company had 55 solar power stations around Taiwan with a total capacity of 2,783.665 kWp.

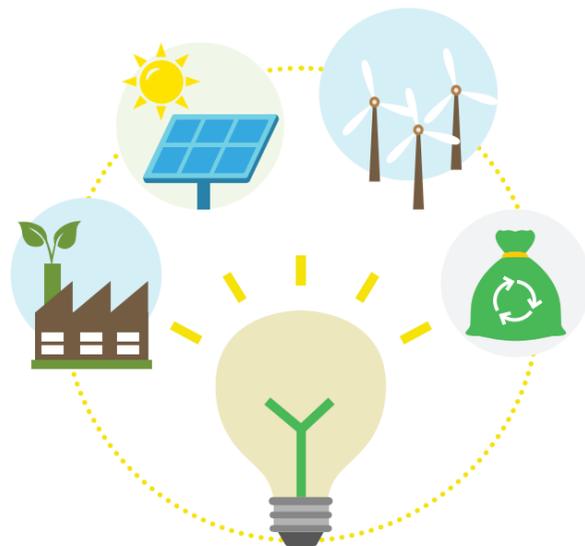
Unit: 10,000 kWh

Item	2007	2018	2019	2020
Total Electricity Consumption (A)	135,180	137,191	135,066	135,350
General Consumption (B)	9,420	106,264	103,338	102,684
Business Consumption – Meter Rate Lighting Service (C)	125,151	24,107	25,497	26,784
Business Consumption – Flat Rate Lighting Service (D)	609	6,819	6,231	5,883
Business Consumption Increment (E)	NA	3,182	802	938
Business Consumption Increment Rate (F)	NA	2.32%	0.59%	0.69%

1. B: office buildings and employee dormitories; C: base stations, depot, and public telephone, which are not CHT-owned property.
2. A=B+C+D, General consumption mainly includes the power consumption of office building. Business consumption increment includes flat and meter rate lighting service.
3. E=Business consumption this year - Business consumption last year; F=E/A
4. This table presents electricity consumption with customer ID, other consumption without customer ID is covered by greenhouse gas inventory.

Energy Savings for Data Centers

Chunghwa Telecom places great emphasis on the energy efficiency of our data centers, and is currently implementing energy conservation measures for telecom facility centers (including IDCs). The efficient application of our proprietary iEN smart energy management system and Power Operation Supervisory System (POSS) for IDCs are our scientific approach to reducing energy, carbon emission and protection of the environment through dynamic energy management via the Internet.



Electricity Consumption of IDCs

Year	2018	2019	2020
Unit: 10,000 kWh	16,440	16,600	16,576

Renewable Energy Usage in Banqiao IDC

Item	2018	2019	2020
Solar power generation (A)	95,624	100,896	104,608
Total power consumption (B)	21,411,200	24,470,132	34,446,400
Energy-saving ratio(A/[A+B])	0.44%	0.41%	0.30%

The Most Eco-friendly Data Center in the Greater China – Banqiao IDC

The Banqiao IDC of Chunghwa Telecom is the first world-class data center in Taiwan that is certified as TIA-942 Rated-3 and Rated-4. Meanwhile, it acquired certifications and labels at home and abroad successively, including ISO 27001 and PCI DSS. With the most rigorous standards and regulations ranging from architecture to electricity, machinery, telecommunication, and information security of IDC in place, we ensure a sustainable operation of the data center.

To effectively reduce the risks in IDC maintenance and raise the confidence of customers, it successfully obtained Uptime Institute’s Management and Operations (M&O) Stamp of Approval in 2020, which made it the first professional IDC in Taiwan that secured the M&O certification. It also acquired the SOC certification in the same year, signaling that we have lived up to the international standards in the sustainable data center maintenance and management.

Water Resource Management

Water usage at Chunghwa Telecom is mostly domestic. Apart from bathroom use, air conditioner cooling accounts for another major water use. Given the ongoing increase in business activities and manpower, there is limited room for water reduction besides the recovery of rainwater and cooling water.

We benchmarked the 2012 water usage as the standard, and now control the annual growth of water usage to no more than 2%. In addition to a new water leakage detection feature in products, we have also included Company water consumption in the EARTH system. Centralized water bill payment is done through the EARTH water bill management function to reduce the printing of water bills. Managers can use the system to search, generate trend charts and report forms, and provide exception reports to avoid mistakes in billing and meter reading. Managers can also review the situation of water usage according to trend charts and reports, reduce expenses in water, and improve the efficiency of management.

The management and analysis information interface can be used to promote water conservation measures and set concrete management goals. We also promote water-saving measures to increase efficiency in water use:

- Install sink faucet sprayers to reduce waste
- Install dual flush toilets to reduce waste
- Use collected rainwater for watering office plants
- Encourage the installation of water reclamation equipment in new buildings, so that physically separated and treated sewage water can be reused for non-potable purposes after it has reached a certain quality standard

To enhance the effectiveness of water recycling and reuse, we have set up raft foundation water collection systems underground to collect clean rainwater from rooftops and the ground surface. We have also initiated the recycling of cooled and condensed water from office air-conditioners and promoted a recycling and reuse plan for rainwater, bathwater and air conditioner water. The recycled water is reused for watering plants and cleaning sidewalks, being utilized to its fullest extent.

Year	2018	2019	2020
Tap Water	753,023	691,954	679,629
Recycled water	1,624,419	1,590,716	1,617,960
Recycled water	7,398	3,776	2,777

Starting from 2018, the amount of resource and energy consumed by Honghua International in its rented areas are excluded.





The sole telecom operator in Taiwan that passed water footprint certification

To accurately capture the water resource risks and in response to the UN SDG 6 Clean Water and Sanitation, we chose the most representative Rated 4 IDC of the Greater China region – Banqiao IDC and Cloud Data Center of Chunghwa Telecom for ISO 14046 certification on water footprint inventory and certification. As a result, it passed the verification by the SGS-Taiwan and obtained the assurance statement, making Chunghwa Telecom the sole telecom operator in Taiwan that passed water footprint certification. The benefits achieved are as follows:

- Water resource management strategy established: establishment of the SOP for organizations water footprint helps in the attainment of water resource management targets.
- Enterprise water usage management enhanced: the water usage distribution in the enterprise is captured effectively via water footprint inventory in order to create a complete water resource management system and stipulate proper measures to achieve the target of water conservation.



Waste Management

Chunghwa Telecom understands the importance of resources reduction, recycling and reuse and has combined related reduction plans into the EARTH system. This is used to manage the use of resources and control energy efficiency, as well as to conduct systematic management of recyclables and waste treatment. We contracted a professional waste treatment company to transport our daily waste to landfills or incinerators for disposal. Recyclable waste is handled by a contracted cleaning company that is responsible for classification, treatment and proper disposal.

Year	2018	2019	2020
Weight of domestic waste Unit: tonnes	3,505	2,881	3,173

Starting from 2018, the amount of resource and energy consumed by Hongghwa International in its rented areas are excluded.



Industrial Waste

Scrapped lead-acid batteries are recyclable industrial waste regulated by the EPA. Business organizations are responsible for the reduction of pollution, disposal of toxic substances and simple waste disposal. All recycling and disposal operations are outsourced by joint contract based on the public auction. The contractor must be a qualified service provider listed on the website of the Recycling Fund Management Board of the EPA to ensure legitimate management and disposal.

Scrapped lead-acid batteries from each business unit are auctioned on site, and the Announcement and Delivery Slip for Removal and Disposal of Waste Lead-Acid Batteries is retained for reference. A total of 34,148 leadacid batteries with a total weight of 1,630,201 kg were scrapped and sold for NT\$31,143,557 in 2020. In fulfilling our responsibility for environmental protection, we also increased Company revenue. The public and private waste clearance and disposal companies recognized by environmental institutions are designated to handle the treatment of other industrial waste such as cables and miscellaneous hardware.

Item	Unit	Amount			Disposal Fee (NT\$ thousand)		
		2018	2019	2020	2018	2019	2020
Plastic-filled Cable	Metric ton	290	126	347	227,460	191,223	369,766
Ordinary Cable		1,348	1,152	1,504			
Miscellaneous Hardware		1,350	703	1,329			
Batteries	Piece	27,194	33,332	11,908			

3G Green Stores

Chunghwa Telecom is a highly-localized telecom carrier, a generous contributor to community development, and one of the most important partners to other telecom carriers around the world. As technologies progressed and improved, we began some operations that were outside the conventional telecom boundaries, corporate social responsibility concepts were introduced into products and services research, development, applications, and into the Company management strategies.



Green Revenue

In addition to developing products friendly to the environment, we have been promoting Green Stores and were the first telecom carrier in Taiwan to fully turn service centers into Green Stores. In 2020, green revenue was NT\$ 361 million, which was 16.3% of the commercial products revenue.

Paperless Receipt Service

We have been promoting electronic billing since 2001, and reduce carbon emission by eliminating the use of paper bills. In 2017, we offered paperless receipt service. At the end of 2020, the percentage of paperless receipts exceeded 71%. The service saved 590 million sheets of paper and an estimated 53,673 trees, reducing carbon emission by 10,627 metric tons.

Item	2018	2019	2020
Customer applying for e-bills (10 thousand)	1,869	1,933	1,968
Ratio of customers applying for e-bills	68%	70%	71%
Quantity of paper saved (per 1,000 sheets)	560,700	579,946	590,000
Number of trees saved	50,973	52,722	53,673
Reduction of carbon emission volume (metric ton)	10,093	10,439	10,627

1. The data of paper saved and reduction of carbon emission is by e-bills (including SMS) and combined bills.
2. Each e-bill reducing the use of envelopes and paper are 2.5 sheets of A4 paper. Total amount of paper saved: number customers applying for e-bill × 2.5 × 12 (month).
3. 1 sheet of A4 paper generates 18 grams of CO₂; Carbon emission reduced: number of paper saved (1,000 sheets) × 18 grams.
4. The number of trees saved: each ton of paper pulp produced=20 trees; one ton of paper pulp=220 thousand sheets of A4 paper. Therefore, the number of trees saved = number of papers saved ÷ 220 thousand × 20.

The Sole Net-zero Carbon Emission Store in The Industry of Taiwan

We became the first telecom service provider in Taiwan that obtained carbon label for service center with our “CHT Syntrend Store”, which is also the only store with zero emission in the industry!

It passed the certifications of and reviews by standards at home and abroad (ISO 14067 and the Carbon Label of Taiwan EPA) and purchased 50 tons of carbon right, securing the carbon neutrality certification PAS 2060 and achieving the standard of zero carbon emission.

We have connected tightly eco-friendliness and green energy with network services. While offering premium services to the general public, we further aim to achieve a green communication with our consumers for them to capture the eco-friendliness and low-carbon nature in products and services precisely. As such, we live up to our corporate philosophy ‘Always Ahead’.



((4G)) Green Supply Chain

The responsibilities and mission of Chunghwa Telecom, as the leader of the telecom industry, are Green of ICT and Green by ICT. This implies facilitation of the greenness of the ICT industry (Green of ICT) and overall greenness of society through ICT (Green by ICT). From 2008 onwards, Chunghwa Telecom developed measures year by year to improve the sustainability of the supply chain, and we accomplished two pioneering achievements:

- **We were the first telecom company to propose the “Sustainable Supply Chain Initiative”**
Effectively connecting with internationally prominent sustainability organizations and partners, also connecting the supply chain to respond to the United Nations Sustainable Development Goals (SDGs).
- **We were the first in the industry to join the “CDP Supply Chain Project”**
We invited 67 suppliers to participate in an international platform to submit carbon management information and improve their ability in managing carbon emissions with scientific and quantification mechanisms.



((5G)) Green Procurement

Chunghwa Telecom supports government policy and prepares annual budgets for the purchase of green products that are either environmental-certified (less polluting, recyclable, resource-saving or green building material) or self-declared to be of less environmental impact throughout the product lifecycle (from raw material to disposal). The Company also actively participates in green procurement programs and activities to inspire green purchases amongst others in the industry and the public.

Our goals and policies concerning green procurement, as we hope to maintain green purchases at more than 5% of the total purchases per year over the mid-term, and increase this percentage to more than 50% over the long term. To achieve this goal, we incorporated the ISO 20400 Sustainable Procurement Standard at the end of 2018. The implementation of the ISO management system helped reinforce the idea of green procurement.

Year	2018	2019	2020
Green procurement total (NT\$ million)	1,487	1,024	904
Accounted percentage of total procurement	3.36 %	2.47%	1.08%

For more information about Green Supply Chain and Green Procurement, please refer to P.112-117

2020 Environmental Performance

Item	Description
<p>Environmental Information Disclosures</p>	<ul style="list-style-type: none"> • Published ESG reports and disclosed environmental data to respond to the Dow Jones Sustainability Index (DJSI) • Execution of an annual greenhouse gas inventory and acquisition of ISO 14064-1 verification and certifications • Responded to the annual Carbon Disclosure Project (CDP) questionnaire • Responded to related national rating questionnaires (including Common Wealth Magazine, Global Views Magazine, and Taiwan Corporate Sustainability Award) • Signed on as a supporter of the Task Force on Climate-related Financial Disclosures (TCFD) initiative and disclosed relevant information in line with the TCFD Framework • Passed the “TCFD Conformity Check” as the first telecom operator in the world
<p>Improve Energy Use Efficiency</p>	<ul style="list-style-type: none"> • Merged and exploited data center spaces • Saved cooling energy: implemented energy saving with 90 HP inverter module, sensible heat air conditioners of 1020 RT, 495 highly efficient air conditioners, 90 RT ventilation air conditioners and 510 natural ventilation air conditioners by the end of 2020 • Used green materials for newly constructed data centers and buildings • Set up rainwater, underground, and condensed cooling water recycling systems for the reuse of water resources • Replaced lamps in the public areas and internal office buildings with environmentally friendly LED bulbs
<p>Implement Green Energy</p>	<ul style="list-style-type: none"> • Constructed 2,783.665 kWp of photovoltaic systems by the end of 2020 • Acquired 105 Taiwan Renewable Energy Certificate
<p>Autonomous Environmental Protection</p>	<ul style="list-style-type: none"> • One and only in the industry of Taiwan: Banqiao IDC passed ISO 14046 certification • Replaced old vehicles with environmentally friendly ones, and used electric vehicles in trials • Sponsored the construction of the YouBike station at the corner of Xinyi Road and Hangzhou South Road • Promoted clean homes, energy-saving offices, car-free days, and paperless Office Document Automation System (ODAS) • The Taiwan Energy Conservation Patrol: focus on increasing energy efficiency within small and medium enterprises and vulnerable social institutions • Set waste reduction and recycling targets
<p>Value-Added Products and Services</p>	<ul style="list-style-type: none"> • One and only in the industry of Taiwan: net-zero emission Syntrend store acquired both the EPA’s Carbon Label for Services domestically as well as the ISO 14067 and PAS 2060 internationally • Promoted e-bill with a marketing section • Electronic invoicing: invoice data were prepared for permanent cloud storage to save material, human resources, and receive preferential tax treatment as an incentive and exemption from fines by the government • iEN smart energy-saving services and promotion of energy-saving products • Mobile device recycling: recycle bins are available at all service centers in line with the promotion of waste recycling • Green Stores: transform 455 service centers nationwide into Green Stores • Collaboration with the Sustainable Alliance for Low-carbon Economy (SALcE) to issue the Sustainable Partnership (products, services, and organizations) Certificate

Sustainable Supply Chain

Every year Chunghwa Telecom purchases the software, hardware and services necessary for operations from international and domestic suppliers. This includes networking and data equipment, cables, marketing, design and waste disposal services. Our enormous purchasing power gives us a profound influence over the supply chain, hence the responsibility to guide our suppliers in the fulfillment of their CSR. This is achieved by implementing conduct that complies with the international supply chain ESG standards to guide the ICT industry towards sustainability.

We were the first telecom enterprise in Taiwan to join the CDP Supply Chain Project in 2017 when the industry was confronted by the critical issues of global climate change and its effect on corporate development. In 2018, we again became the first telecom company to incorporate the ISO 20400 Sustainable Procurement Standard. We strive to establish a better connection to the world on our path towards the development of sustainability. We officially launched Sustainable Partner Certification mechanism in 2019. A total of 16 sustainable suppliers have been awarded with Gold-tier certificates as of 2020.

From earlier on we have encouraged suppliers to disclose their carbon emissions and reduce them gradually. We plan to incorporate low-carbon emissions into our tender regulations: only groups with carbon emissions under a certain level can participate in our tendering process. Through sustainable planning, supplier evaluation and a green supply chain constructed on a hierarchical management system, we hope to achieve the following goals of sustainability: environmental protection, effective operations and management, robust labor rights, as well as safety and health. We were presented with "Certificate of Excellence in Sustainable Supply Chain" by SALcE in recognition of our implementation of supply chain management mechanism in 2020.



CHT's Sustainable Supply Chain Initiative – Sustainable Partner Certification

Chunghwa Telecom upholds its company motto and its mission as a Digital Economy Motivator and a Creative Industry Pilot, formally adopting the ISO 20400 Sustainable Procurement Standard in 2018. With that, it evaluates its suppliers' sustainability performance with the sustainable framework.

We launched "Sustainable Partner Certification" mechanism in 2019. We examine suppliers by SGS second party audit results as well as their type and level of importance, and rate them as 4 tiers of "Gold, Silver, Bronze and Participation" accordingly. If a supplier fails to pass the certification process, it is granted a limited period of time to implement corrective measures. Rated suppliers shall receive a mark that corresponds to their rating, and an excellent mark will be seen as a favorable term when submitting a tender.

We hope to compile a "Chunghwa Telecom Sustainable Supply Chain" list through evaluation, training, audit and certification; we'd also like to lead our suppliers toward a sustainable future, improve the sustainability of telecom companies, business, and society as a whole, as well as keep abreast with the international trends of low-carbon economy.



Supply Chain ESG Management Strategy

Strategy	Management Target	2020 Results
Integrate ESG Principles to Chunghwa telecom supplier assessment	Complete 100% of “tier 1 suppliers” CSR current status assessment in 2020	100% of suppliers completed the CSR survey questionnaire
Ensure ESG conduct of the suppliers complies with “Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd.”	Complete 100% of “critical tier 1 suppliers” ESG on-site visits and audits in 2023	CSR on-site visits and audit rate reached 71%
Continue communication activities to promote supplier climate change adaptation measures and emissions data management	<ul style="list-style-type: none"> Complete 100% of “critical tier 1 suppliers” carbon management knowledge education in 2020 Collect information on climate change and carbon emission from suppliers at least once a year. The number of suppliers who respond to Chunghwa Telecom’s CDP Supply Chain Project questionnaire reaches 200 	<ul style="list-style-type: none"> The first Taiwan telecom carrier to participate in the CDP Supply Chain Project The suppliers’ response rate to the questionnaire was 87.58%

The Chunghwa Telecom suppliers fall into three categories: property, labor and engineering. Apart from professional network communication equipment which is mainly purchased overseas, we buy as much from local suppliers as possible to promote local economic development. The domestic procurement percentage was 80% in 2020. Our target is to reach 96% by 2023.

Suppliers Analysis

Item	Number of Suppliers	Accounted Percentage of Turnover
Tier 1 Suppliers	2,078	99.16%
Critical tier 1 suppliers	192	85.61%
Critical non-tier 1 suppliers	28	--

- Tier 1 suppliers are those that provide products or services directly to Chunghwa Telecom with an annual procurement of ≥ NT\$100 thousand.
- Critical tier 1 suppliers are those that provide products or services directly to Chunghwa Telecom with an annual procurement of ≥ NT\$50 million.
- Critical non-tier 1 suppliers are those that provide critical products and services to CHT tier 1 suppliers, but are not CHT tier 1 suppliers.

ESG Capacity Promotion of Suppliers

In 2020, aside from the existing Annual CSR Supplier Conference and environmental education visits, we organized the first CSR education and training for suppliers, inviting 70 representatives from nearly 50 suppliers to Chunghwa Telecom. Apart from the ESG lecturers internally, we also invited professional ESG consultants to offer a 4-hour ESG program. With the education and training, we expected to communicate to the suppliers our commitment to the sustainable supply chain management and Sustainable Partner Certification system, so as to collectively bridge the supply chains of telecom industry to the international trend of sustainability, which also come with the benefits in the ESG area.



CSR On-Site Audits

To promote awareness of CSR and ESG management in supply chain partners, SGS-Taiwan has been granted to tier 1 supplier on-site audits since 2010 in accordance with ESG principles of supply chain of Chunghwa Telecom. Since 2019, we increased the number of suppliers for second-party audit to 20 with an additional review process. We commit ourselves to 100% completion of ESG second-party audit for our key tier 1 suppliers by 2023. To make sure all our supply chain partners will be in compliance with ESG management requirements, our goal is to complete the sustainability rating of 140 suppliers and issue the certification mark by 2025.

CHT Management Indicator	Method	Ratio
Supplier ESG auditing ratio per year	<ul style="list-style-type: none"> Occupational health and safety on-site audits / engineering and cable audits 	71 %
Percentage of suppliers assessed in ESG in the last 3 years	<ul style="list-style-type: none"> Second-party audit by the SGS-Taiwan Critical non-tier-1 suppliers audits 	29 %

Overview of the Supply Chain ESG Management Results

Item	Description	2020 Goal	2020 Outcome	2021 Goal
Completion of Online Supplier CSR Survey	Suppliers with a procurement amount of NT\$5 million or above is liable to fill out the Supplier CSR Survey that covers items of corporate ethics, labor rights, environmental management, and occupational safety and health.	95%	100%	95%
Procurement staff that received CSR-related training	It is to ensure all CHT procurement staff understand and execute faithfully the “Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd.”	100%	100%	100%
Supplier contracts containing CSR-related terms	Suppliers are explicitly required to abide by the “Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd.” in their procurement contracts.	100%	100%	100%
“CSR self-assessment form for suppliers” included in the documentation necessary in the tendering process	Tendering documentation stipulates that all bidders to fill out CSR self-assessment form for suppliers; additional elaboration on improvement is required in the event of breach of laws or regulations by suppliers.	100%	100%	100%
Suppliers without violations against environmental protection laws	The environmental management status by suppliers is captured via online questionnaires.	100%	100%	100%
Supplier CSR second-party audit	Through second-party audit, key suppliers are ensured free from environmental and human right risks such as forced labor.	100%	100%	100%
Audits on civil engineering/cable contractors	A total of 191 audits were carried out on 74 contractors. As of the end of 2020, 29 suppliers were found with incidents of violation and the fines amounted to NT\$874 thousand.			
On-site safety and health inspections	Occupational safety and health officers under the Northern and Southern Taiwan Business Groups and the Mobile Business Group conduct at least three on-site safety and health inspections per week. Upon discovery of non-conformities, relevant departments will be notified for corrective action tracking. A total of 19,716 inspections were conducted on 936 contractors in 2020.			



The first Taiwan telecom carrier to participate in the CDP Supply Chain Project Connecting Low-Carbon Supply Chain

After The Paris Agreement took effect, we entered an age of low-carbon economy. Chunghwa Telecom is a carrier in the information and communications industry, and this is a crucial issue of great urgency. We need to understand and respond to the impact of climate change and plan appropriate response strategies and actions at once. In 2017, CHT first joined the “Carbon Disclosure Project (CDP) Supply Chain Project.” We are promoting an understanding of climate change among our suppliers and will make every effort to increase their efficiency in carbon management. CHT is going to put an encouragement mechanism in place that will help suppliers with the research and development of products and services that have less impact on climate and environment. Our three goals for the supply chain carbon management are:

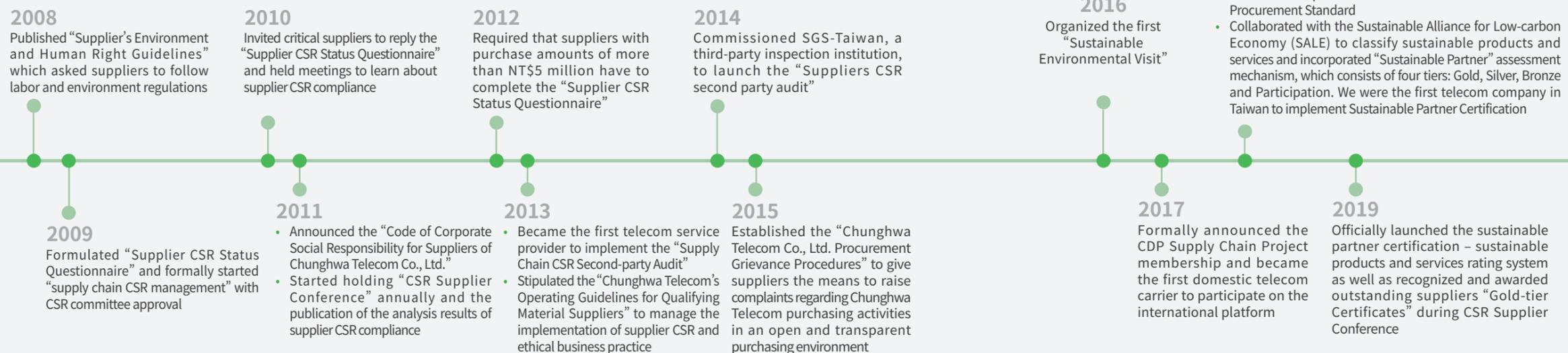
1. Increase supplier awareness and knowledge of climate change
2. Collect greenhouse gas emission information
3. Communicate and encourage changes in the behavior of suppliers



Abstract of the Results of Chunghwa Telecom’s 2020 “CDP Supply Chain Project”

49% of suppliers responded to Chunghwa Telecom’s questionnaire (71% globally)	Chunghwa Telecom’s supply chain reduced carbon emissions around 2,470 thousand t-CO ₂ e	48% of suppliers have taken energy-saving and carbon reduction measures
79% of supplies incorporated climate change into long-term business strategic planning (on average 85% globally)	55% of suppliers have set emission reduction goals	61% of suppliers have established procedures for evaluating climate-related risks

Supply Chain Sustainable Low-Carbon Management



2020

- Organization of the first ESG education and training event for suppliers
- Certifications of Excellence in Sustainable Supply Chain and of Sustainable Partner by SALcE
- Ongoing implementation of “Sustainable Partner Certification – Sustainable Products and Services Rating” with 16 suppliers rated as Gold-tier

The Achievements of CHT’s 2020 Supplier Energy Conservation Project

Types of Projects	The Amount of Carbon Emissions Reduced (t-CO ₂ e)	Estimated Amount of Money Saved Each Year (USD)
Changes in Corporate Policies and Behaviors	230	138,916
Energy Efficiency in Buildings	1,165	5,624,859
Energy Efficiency in Manufacturing Processes	1,544	3,344,367
Low-carbon Energy Consumption	307	14,285
Self-produced Low-carbon Energy	0	232,314
Waste Reduction and Material Recycling	5	1,210
Others	0	14,751,915
Total	3,251	24,107,866

Improvement of Suppliers’ Sustainable Actions

We published “Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd.” in 2011, and it clearly outlines the Company’s expectations in terms of “business, ethics, labor, environment safety and health.” The guidelines apply to all suppliers that provide products or services to Chunghwa Telecom or its subsidiaries or joint ventures, and extend to other participants of the supply chain to which the supplier is directly or indirectly related. We hope that suppliers will commit to our values and take more proactive steps towards maintaining a sustainable business ecosphere.

CHT shares resources with suppliers to help them develop R&D capabilities and future technologies. We also devote ourselves to the creation of a friendly and innovative environment. We engage suppliers in R&D projects, reward their contributions, and make arrangements for the transfer of acquired technology and licenses fairly. Regarding hardware, we continue to support the development of telecom facilities and testing environments; in terms of software, we utilize open platforms to share our benefits with suppliers.

Type	Description
Rewards top-performing suppliers	To reward top-performing suppliers, Chunghwa Telecom conducted a trial in southern Taiwan, offering qualified suppliers the privilege of tender bond waiver when submitting tenders, as well as a reduction of the performance bond to 5% of the value of the contract won. This was an attempt to exert influence as an industry leader and bring more attention to corporate social responsibility.
Training of professional skills	Our Telecom Training Institute has been providing suppliers with relevant training and certification courses to satisfy their requirements. Some of the popular courses include: cabling contractor certification, telecom line construction quality assurance certification, and fiber optic contractor training. In 2020, the institute organized 38 classes and trained 707 workers; 383 of whom had obtained certification.

[Participation in the Arena of Environmental Education Together with Suppliers in 2020 Video](#)

S Strategy

Minimize the digital divide and create digital opportunities

M Management

The LBG assessment of investment in the community

Social Return on Investment (SROI) calculation

A Action

5I SDGs digital inclusion initiative

Telecom universal service

Digital Good Neighbors

“Read with You” - Community Network Tutoring

R Response

“I Helping” Training volunteers for the visually impaired

Corporate volunteer action

“5I SDGs” strategies and goals

T Target

Short-term:
Effort to make telecom services more accessible continually and adjust the Digital Good Neighbors sites resiliently

“5G Limitless Plastic Free Day” Campaign for the implementation of I Sharing and I Protecting in 2021

Mid-long term:
Social investment will reach 1% of revenues by 2025

To support the installation of access points for large-scale national festivals or sporting events and keep on providing tourists with a high-quality internet service every year

The Chunghwa Telecom Foundation funds NT\$30 million in the creation of digital opportunities in local communities

I Indicator

GRI
Social investment: NT\$1,076,690 thousand

GRI
Telecom subsidy for underprivileged groups: NT\$195,855 thousand

CHT
Digital Good Neighbors: 89 locations

CHT
SROI of “Read with You”: NT\$6.47

The Social Value Guide



The SDGs CHT contributes to in this section

Chunghwa Telecom “5I SDGs” Initiative

As the pilot of CSR, Chunghwa Telecom has developed its core competence to positively minimize the digital divide and devote itself to the creation of digital opportunities. Since 2015, we have chosen to connect with the 2030 Sustainable Development Goals (SDGs) of the United Nations. Through real action, we have demonstrated our determination to develop and implement global sustainability.

On the basis of complete digital inclusion strategy and bridging our years of experience in social inclusion, we promoted the 5I SDGs initiative. The “5I” in the initiative, apart from being a homonym to the phrase “I Love” in Chinese, the “I” also suggests to “achieve the SDGs via ICT” that effectively connects the SDGs with the objectives of the DIGI+ locally. By expanding partnerships in collaboration with NPO/NGO, supporting the sharing of knowledge and technology resources, creating a connection between the underprivileged and other diverse groups in this digital era, and realizing a win-win situation for digital human rights and an innovative economy, technology allows us to link to the good cycle.

CHT’s 5I SDGs initiatives: I Helping, I Sharing, I Learning, I Technology and I Protecting, as the first real initiative in Taiwan that connects Sustainable Development Goals (SDGs) with the Digital Country Innovative Economy Development Program (DIGI+) from the Executive Yuan. The goals of the 5I SDGs are:

1. Embrace the world from Taiwan, officially responding and implementing the UN SDGs
2. Respond to the objectives of the DIGI+ of the Executive Yuan, widen the scope of digital inclusion and ensure Information Equality in the networked digital era
3. Leverage the core functions, connect expertise across branches and corporate volunteer resources, and work with professional communities to deepen the impacts of socially inclusive actions

5I	I Technology	I Protecting	I Helping	I Learning	I Sharing
Corporate Volunteer	Technology Education Team	Green Service Team	Visually-impaired Service Team	Love in Learning Team	Community Service Team
Core Competence	Utilize digital technology to promote digital equality	Save energy and reduce carbon emission to treasure Earth with green actions	Assist the visually-impaired in bridging to digital technology and services	Bridging the rural-urban gap and flip education in rural areas	Promote local services as a friendly significant neighbor
Action Plan	<ul style="list-style-type: none"> Cellphone expert program in service center 	<ul style="list-style-type: none"> Reduce marine debris Energy-saving volunteering 	<ul style="list-style-type: none"> Beacon case Blind aid courses 	<ul style="list-style-type: none"> Read with You CHTF's projects 	<ul style="list-style-type: none"> Taiwan telecom digital collection commenting
UN SDGs					
2030 Goals	<ul style="list-style-type: none"> Cultivate 2,000 technology education volunteers Technology education services for over 5 million 	<ul style="list-style-type: none"> Reduce over 10 million t-CO₂e carbon emission of suppliers Help reduce energy and carbon emissions of communities over 1 million t-CO₂e Cleaning the marine debris for over 100 t 	<ul style="list-style-type: none"> Benefits over 60,000 visually impaired people in Taiwan Helping in lives and entertainment of over 200 thousand visually impaired people 	<ul style="list-style-type: none"> Over 8,000 university students as tutors Schoolchildren who have been tutored for over 180,000 hours 	<ul style="list-style-type: none"> Over 50,000 Corporate Volunteer Services Over 3 million communities stakeholders being helped

[Video of 5I SDGs](#)

I Technology + I Sharing – the Stronghold for the National Critical Infrastructure Protection

“National CIP Designated Exercise for Critical Infrastructure” led by the Executive Yuan is one of the highest level of national exercise, Chunghwa Telecom constantly evolves its technology and has been designated by the Executive Yuan to organize the Designated Exercise for six years in a row. With multifaceted cyber resources and meticulous response capability against disasters combined, CHT was awarded the collective honor of “Outstanding Entity” in 2020. Also, in light of the proper commanding and coordinating performance of our President Shui-Yi Kuo, which were highly recognized by the assessors, President Kuo was presented with the honor of “Best Commander”.



Our core expertise span from mobile, fixed line, submarine communication cable, and data to the emerging technological energies like AI big data, cybersecurity, and blockchain, which fall into the “communications” area of the national critical infrastructure. The exercise went for more than 7 months. We joined hands with 26 external response entities and realized a highly efficient horizontal communication. Targeting complex scenarios such as natural disasters, cybersecurity, man-made terrorism, we deployed overall contingency plans that fully demonstrated our resiliency in fighting and responding to disasters. As such, we successfully pulled off the contingency exercise that covered the widest in terms of disaster types and entity number while mobilized the most manpower over the years, and thus received the highest national recognition.

We shall continue to better the protections for various critical infrastructure, work closely with the public and private sectors to form joint defenses to ensure the business continuity of enterprises and the smooth communication and management of the country.

I Helping + I Learning – Helping the visually-impaired to see museum

Chunghwa Telecom works with the Tamkang University Resource Center for the Visually Impaired, to live up to the spirit of the Convention on the Rights of Persons with Disabilities (CRPD), proactively exercising the digital and cultural equality. In 2020, we donated the computers for the blind we developed together over the past 3 decades to the National Science and Technology Museum to establish “Telecom@Taiwan”, the first exhibition with the guiding service for the visually impaired permanently available to facilitate the visually-impaired visitors to “see” the works of science and technology.

“I Helping” of Chunghwa Telecom utilizes the smart information communication technology to develop “the integrated solution of in-depth museum tour for the visually impaired”, so that the visually impaired may listen to the information of exhibits via “Voice-based Personal Assistance App” before the tour. Combined with the QR Code on site for introduction, the braille system, push messages, and professional tour guides, one can gain knowledge of his/her surrounding environments via text and images. Also, corporate volunteers “exclusive to individual” are recruited and trained. “I Learning” – an effective, appropriate companion for the visually impaired to enjoy the tours to the National Science and Technology Museum and the National Museum of Natural Science throughout to explore the mysteries with biology and technology in depth.

“I Helping” and “I Learning” of Chunghwa Telecom bridges the cultural lag via intelligent technology, helping the visually impaired to learn, expand their living sphere, and cultivate expertise. It aims to present a decent example to bring out more applications that follow, so as to fulfill the Goal 9 “Industry, Innovation and Infrastructure” and Goal 10 “Reduced Inequalities” in the UN Sustainable Development Goals (SDGs). The popular science tours in 2020 benefited 42 visually-impaired individuals with 115 corporate volunteers involved.

[Video](#)





UN SDGs	Description of CHT's responses to the UN SDGs
	<ul style="list-style-type: none"> To bridge the gap of communication and information quality between the rural and urban areas, we go into the mountains and offshore islands to construct 4G cell sites. In response to the objectives of Digital Nation & Innovative Economy Development Program and Forward-looking Infrastructure Development Program - Digital Infrastructure, actions are taken as the testimony to CHT's capacity in social inclusiveness. Over NT\$400 million is allocated to construction and maintenance of universal telecommunication service to realize 4G in every town and village and 100% coverage in towns and villages in an endeavor to fulfill the visions of promote social innovation and information equality and realize the win-win of digital human rights and innovative economy. Responding to SDG 1 with actions to ensure that all, the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services.
	<ul style="list-style-type: none"> CHT develops AI agricultural analysis model. Agricultural sensors are deployed for catering to the needs of farmland to collect data of growth environment and weather for compilation and analysis to produce forecast of the farmland's conditions in the following days. Also, the data is uploaded to a smart agriculture cloud platform via NB-IoT technology, with which farmers can arrange their farming schedule accordingly. Through NB-IoT technology, technology is introduced to agriculture, analyzing key environmental monitoring parameters of produce. The optimum environment for produce's growth is built and risks of agricultural disaster are reduced via forecast of the future tendency of data changes, which facilitate the improvement of yield and quality of produce and achieve the goal of a smart quality agriculture.
	<ul style="list-style-type: none"> As the first telecom service provider that introduced OHSAS 18001 and TOSHMS as well as obtained certification of ISO 45001 – occupational health and safety management systems, CHT implements the management of its employees safety and health in an institutionalized and systematic manner. Health checkup for employees is conducted annually, together with Employee Assistance Programs, health lectures, hiking, tours, and sports competition for employees; professional medical doctors and health managers are invited to offer health advisory to employees, so as to build well-rounded caring measures for employees. The Mobile management tool eSafe Wizard app for occupational safety and health developed to allow personnel to manage the operation on-site via cellphone introduces cloud, paperless, real-time, and effectiveness into the safety and health management.
	<ul style="list-style-type: none"> Read with You Network tutoring program has been promoted joint forces with Fu Jen Catholic University since 2009, assisting disadvantaged students in primary and middle school students in the rural areas in their schoolwork while keeping the students company for their psychological need for companionship, which substantially facilitate school children in the rural areas in overcoming rural-urban gap and flipping their lives. CHT Digital Good Neighbor program executed for over a decade set up digital centers in 89 towns and villages across the country to promote digital applications joint forces with CHT, CHT Foundation, and local organizations and teams. CHT's ICT expertise is fully leveraged to assist local organizations in rural areas or in need to establish a stable network environment and ensure the rights to digital technology in local community.
	<ul style="list-style-type: none"> We value right to work and gender equality; the pay to female employees, management level or not, is equal to that of a male employee. Directions for Chunghwa Telecom Sexual Harassment Prevention and Grievance Management has been stipulated to put the Act of Gender Equality in Employment into practice. Appeal Review Committee has been established to handle appeals concerning discrimination against employees and other inappropriate conducts. There are 5 members on the committee, including 3 female members, which is over a half of the seats.
	<ul style="list-style-type: none"> Our water usage is primarily domestic purpose; apart from water for washing, water for cooling air-conditioning accounts for the majority of water usage. The water resource management nationwide is included in the EARTH system of CHT's own device, as the innovative water bill management in the system can achieve a centralized management of water bills and water usage throughout the branches in Taiwan with ease that not only reduces the waste of water bill printing, but also analyzes and controls the consumption of water resource via big data. In 2019, the water footprint inventory for the IDC at Banqiao introduce ISO 14046 water footprint standard and having obtained the assurance statement upon passing the SGS certification. Through the water footprint inventory of the IDC, the water usage and water pollution throughout the life cycle of the IDC are taken into consideration to identify the environmental risks concerning water resource and as the critical reference to the planning for water management policy and measures in the future.
	<ul style="list-style-type: none"> Renewable energy has been actively developed to bridge ourselves to green energy. As of the end of 2020, CHT has installed solar PV systems throughout Taiwan with a total capacity of 2,783.665 kWp. Marching into the green energy industry, we assisted to build the solar power stations. Undertook solar power plant construction projects of Taiwan Cement subsidiary and Taipower respectively, the previous one is the largest construction project of solar power plant commissioned by the private sector.
	<ul style="list-style-type: none"> CHT is the only telecom carrier with a labor union established and a collective bargaining agreement with it. The agreement covers issues pertaining to layoff, reward/punishment, promotion, health and safety, etc. In 2020, the employees covered by the agreement reached 99.26%. Meanwhile, a labor director is appointed to sit on the Board of Directors to voice the needs of employees to the top level. Complete education, reasonable remuneration, and a dignified environment allow our employees to commit themselves at work and reduce turnover rate. In 2011, EYE Social Innovative Call Center was established and the first comprehensive solution in Taiwan was released, training the visually-impaired individuals into call center personnel and offering work opportunities.
	<ul style="list-style-type: none"> High-speed broadband network is deployed continuously to improve the network speed for clients; ultra-speed broadband network of 1Gbps is being deployed pursuant to the DIGI+ of the Executive Yuan, which is expected to reach a 90% coverage by 2020 to meet the demands from the video streaming services in the age of digital convergence. Upholding the spirit of digital equality, we are actively deploying mobile network in rural areas and improving network infrastructure and communication coverage in the rural areas in addition to being the No. 1 in the number of cell sites both across Taiwan and of counties/cities deployed; the mobile broadband coverage in the rural areas is above 97.58%.

UN SDGs	Description of CHT's responses to the UN SDGs
	<ul style="list-style-type: none"> We proactively monitor and protect human rights issue (anti-discrimination, gender equality, freedom of association, collective bargaining, child labor, forced or compulsory labor, and aboriginal rights etc.). We respond to the UN Declaration of Human Rights and the ILO Convention on the elimination of all forms of discrimination. We prohibit forced and child labor, and also respond to the domestic legalization of UN International Covenant on Civil and Political Rights and the International Covenant on Economic, Social, and Cultural Rights, dedicating to promote human rights awareness and assure respect and fair treatment to all stakeholders. On digital equality issue, CHT is a member of the International Telecom Union and we fully comply with International Radio Regulations and assure the freedom of communication, transparency in global roaming charges and competition, support of Telecoms in developing nations, telecom services for persons with disabilities and the freedom of speech over telecom networks. In addition, we support the UN Guiding Principles on Business and Human Rights by conducting a human rights issue in the operational value chain is evaluated and we maintain all risk at a minimum level.
	<ul style="list-style-type: none"> Following the development of IoT, 5G, big data analysis, and AI, as the Leader in Smart Living and Agent of Digital Economy Empowerment, we assist Taiwan in constructing smart sustainable cities via smart solutions. Utilization of Intelligent Operation Center (IOC) on the foundation of technologies such as IoT is at the core of a smart city. Local governments can integrate individual systems of different departments, collect and analyze municipal information, present it in an intelligent, systematic, and visual fashion, gain information of appeals from citizens, air quality, fire disasters, traffic safety, and medical resources, and construct sustainable, safe, health cities with the IOC platform.
	<ul style="list-style-type: none"> The first edition of CSR/ESG report was released in 2007 and has been disclosing the non-financial information of the corporation for 14 years consecutively. A green procurement strategy is fully implemented with over NT\$904 million of green procurement amount and accounting for 1.1% in the total procurement amount in 2020. We took the initiative of supplier CSR management actions in 2008, which made us the first telecom carrier that promotes CSR management for supply chain in Taiwan. From Code of Corporate Social Responsibility to questionnaire survey, annual CSR Supplier Conference, sustainability education, and on-site audits of over 100 suppliers in cooperation with the SGS, we improve the sustainability capacity of our supplier partners step by step. Through accumulation of a decade, apart from introduction of ISO 20400 sustainable procurement guidance, sustainable rating label was implemented in 2019, realizing the idea of sustainability in our products and services while maximizing the influence of procurement to create new green business opportunities.
	<ul style="list-style-type: none"> The dedicated Environmental Sustainability Task Force has been established under the CSR Committee, tasked with stipulation of environmental sustainable development goals and incorporation of issues of carbon management in the operation plan. In 2008, we introduced ISO 14064-1 greenhouse gases management system to inventory the carbon emissions with over 1,800 buildings and cell sites and pass the SGS certification each year, and the standard was officially converted to ISO 14064-1:2018 in 2020. We further connect to the external supply chains to promote sustainable, low-carbon supply chain practices and develop green products and services. Since 2016, approximately 100 supplier partners are led to environmental education venue to engage carbon management training to elevate their environmental protection awareness every year. We joined the CDP in 2018, promote whole supply chain carbon management actions, and are the first telecom carrier in Taiwan that signed and responded to the initiative of Task Force on Climate-Related Financial Disclosures (TCFD). We became the first telecom operator in the world that passed BSI's "conformity check for the TCFD Recommendations on climate-related financial disclosures" with the highest level attained.
	<ul style="list-style-type: none"> In response to "Changhua County Joint Beach Cleanup Activity" in 2020, a total of 60 corporate volunteers joined the effort to clean up 14,100 kgs of general wastes and recycle 5,600 kgs of resources to contribute to the cause of "Protect the Ocean; Love the Planet".
	<ul style="list-style-type: none"> We worked with Dr. Jane Goodall in 2006 and formed an alliance to participate and care for environmental education and conservation issues and sponsored the Jane Goodall Institute in planning, producing, and publishing the "Roots & Shoots Environmental Education Newsletter for Children." "Sustainable Environmental Education" initiative, firstly created in 2016, we take 126 supplier partners to the environmental education venue to engage "Sustainable Environmental Visit" training in 2020.
	<ul style="list-style-type: none"> To ensure that all employees engage operation activities with the highest ethical standards, we have stipulated Ethical Corporate Management Best Practice Principles, Code of Ethics, and Procedures for Ethical Management and Guidelines for Conduct to lay out the required ethics and responsibilities when employees engage business conducts while comprehensively promote and deepen the corporate culture of ethics and integrity. Guidelines for Personnel Evaluation and Standards Governing the Administrative Rewards and Discipline of Chunghwa Telecom Personnel have been stipulated for personnel evaluation; rewards and disciplines are to be given in a timely manner pursuant to the regulations upon deeds worthy of rewards and conducts to be disciplined. Safe and rigorous whistleblowing mechanism is established; the employee grievance hotline is made available in the Employee Section on the EIP. Certification of Conformity to Code of Conduct by an external third party is conducted as of 2020.
	<ul style="list-style-type: none"> We connect organizations, global and local, with the corporate resources and core competences to serve specific stakeholders, stakeholders in the rural areas, and disadvantaged stakeholders, so as to create a digitally inclusive society. Since 1988, we have been working with the Center of Resources for Visual Impairment of Tamkang University and dedicating ourselves to aiding the visually-impaired with telecom technologies and development of a voice-based assistance app for the convenience of their lives. Since 2009, we have been promoting Read with You network tutoring for over a decade joint forces with Fu Jen Catholic University, replacing roads with networks to offer schoolchildren in rural areas a hand on their schoolwork. Since 2015, working with the NTU Hackathon and establishing the network environment in the venue for the participants to retrieve data to produce innovative solutions. To facilitate the economic autonomy of community industries, CHT Foundation has been working with social enterprises like Xizhou Water Farmer Company, Indi-Power Social Enterprise, and Kanner Foundation of Taiwan, putting the produce and products of the indigenous communities on the CHT Employee Purchase Net for our fellow employees to jointly support the community-based industries while promote the idea of sustainability. Also, the Children Are Us bakery was set up on the Company to increase its channels with real actions.

360 Degree of Digital Inclusion Actions

Chunghwa Telecom focuses its social investment in minimizing the digital divide and the creating of digital opportunities, given the specific nature and the core competence of information and communication in the ICT industry. We also spare no effort in the advocacy of corporate volunteers to participate in local community services, and proactively assist the communities in creating digital opportunities. We promote all aspects of digital inclusion using 360-degree vision. In 2020, Chunghwa Telecom established 27 sites for accessibility to telecom services in long-term support of a government initiative to protect fundamental rights to communications.

Chunghwa Telecom Digital Inclusion Strategy 2020 Results



Minimize the Digital Divide

Chunghwa Telecom Foundation Digital Good Neighbors

- The Digital Good Neighbors were located in **89** places

The annual investment of Telecom universal service is approximately 4.9 hundred million

- Telephone services for more than **220,000** homes in **86** rural communities in Taiwan
- Data communication service for more than **120,000** households
- Data connection service for more than 600 high schools, primary schools, and public libraries.
- More than **36,000** public telephones installed across **22** counties/cities

Preferential subsidies for the disadvantaged groups

- Care for **77,398** households of the disadvantaged groups, with subsidies amounting to NT\$**195,855** thousand

Equipment supports for major events

- Broadband circuit, MOD platform promotion, mobile base station vehicles, SMS, Wi-Fi AP, temporary data circuit
- The coverage rate of the 12Mbps popularization broadband service is over **97.58%**



Create Digital Opportunities

Chunghwa Telecom Foundation Click Taiwan

- The 12th Click Taiwan: totaling **58** school students went deep into **29** different villages

The CHT Digital Innovative Application Series

- The CHT Digital Innovative Application Series has been running for **13** years to promote digital development in Taiwan

PC education Network tutoring

- Read with You Community Network Tutoring has tutored near **3,152** students over **12** years and the tutorial hours has now reached **97,105**
- iPhone usage training courses for the visually impaired were regularly held in support of the visually impaired assistance plan

Assistance application development / Employment

- App for the Visually Impaired has been viewed over **20 million** times since 2013
- We established the EYE Social Innovative Call Center where the visually impaired can become paid service personnel and earn their own living

Social Investment Management

Chunghwa Telecom refers to the community investment evaluation mechanism of the LBG (London Benchmark Group), to conduct evaluations on the possible community benefits and business benefits before an investment made. The quantification of the contribution of social investment allows us to make reasonable resources allocation while avoiding repetition. It helps the decision-making and promotion of charities as well as future sponsorship.

Social Investment Statistics for 2020

Cash Donations	167,262
Product or Service Donations	705,118
Management Expenditures	20,891
Corporate Volunteer Services	183,420
Total	1,076,692
Hours of Corporate Volunteer Services	16,970
Percentage of Revenue	0.52%

Unit: NT\$ thousand

Minimizing the Digital Divide

Chunghwa Telecom Foundation was founded in 2006. Through long-term cultivation of our core competence to communities, tribes, urban fringe, and areas with relatively lack of resources, the Foundation is a resource platform for connecting and arranging the good material, and further share to needed locations. It has become the strength that supports and assists the advancement of these local areas.

Chunghwa Telecom Foundation Cultivates and Works with Communities for the Common Good

Chunghwa Telecom and Chunghwa Telecom Foundation have joined hands cultivating communities for 13 years, establishing digital good neighbors across Taiwan to bridge the rural-urban gaps in resources, serve as the platform to connect resources, offer resources such as community digital learning, youth volunteering, sports/cultural/art activities, and local industries promotion, as well as discover moving stories and local industries unique to local communities.

Today, the partnering bases have been set up across all corners of Taiwan Island and offshore islands, covering ethnic groups of Minnan, Hakka, indigenous peoples, and the new immigrants. With the unity and connection of good neighbors, we expect a variety of residents different in ethnicity and ages can all gain opportunities and energy from them while bridging the gap between cities and towns/villages in resources.

Click Taiwan — Service Learning for Youth in Universities and Colleges

Since 2009, Chunghwa Telecom Foundation accepts applications from youth in college with 2 people in a group. The students are required to have a prior knowledge of the needs in the community, combine their expertise, design, and implement services catered to the local needs, while documenting the processes in texts and images. In 2020, students from 31 departments across 16 universities, total 29 groups carried out services in communities with the respective expertise and talents like planning activities of poetry composition and reciting, GPS hometown treasure-hunting game, painting hometown as well as courses like reading, laws, baking, play writing, and photography for the people in the communities, young and old, to enjoy a fruitful summer vacation. Meanwhile, they also conducted historical and cultural field research in the communities, designed pamphlets for the industries, shot the root-seeking documentaries of the tribes, curated the opening exhibition for the Tribal History Museum, etc. to preserve local stories while bring forth new ideas and perspectives for the communities to facilitate the communities' growth and bridge the urban-rural gaps from diverse facets. The participants in Click Taiwan had been primarily youth from the departments relevant to communication. In 2021, we adjusted our marketing approach and expand our reach to more schools and departments such as those of natural science in hopes of ushering in more perspectives for the local communities in rural areas in order to propose service solutions tailored to the needs on the ground locally.

[Event Link](#)

Reflections from the Participating Students in Click Taiwan



Katratripulp Tribe, Taitung

From the youth of the Katratripulp Tribe, we could detect their profound affection and passion for the tribe and cultural inheritance. Hence, we'd like to share the spirit and emotion with each and every audience.



Rubas Tribe, Hualien

"There are numerous ways to come home. You get to choose what you want, as no one demands you to know them all. Just find something interesting to find your own identity." As time goes by, the people of Truku dwelling in the Rubas Tribe have gone beyond the old days when they traded with each other in kind self-sufficiently to the days of trading in currency. Making a living for the family and for study become the new center in their lives.



Tian En Association, Taichung

The family of the pastor gave up their works, following the pastor's footstep to contribute to the children of Dadu. They support and believe in each other and work collectively. Everyone in Tian En is an essential piece to a puzzle that builds this place full of love. The pastor's family share a more intimate, stronger bond thanks to Tian En. Hence, this is what we want to document, i.e. the content, kind family that left a mark on our hearts.



Mailiao Culture Association, Yunlin

Without the invitation of my partner, my summer vacation this year would have been just like the other summer vacations previously, working day in and day out and going on trips with friends to the Instagram hotspots everybody goes. The trip I've always aspired for is a trip for me to find a place to stay longer. I think if you want to know a place, you have to blend in the local life, so you can truly appreciate the features, the beauty, and the attractions of the place.

2020 Social Contribution of the Foundation

Item	Youth Empowerment	Digital Empowerment	Local Empowerment	Social Marketing	CHT Women's Basketball Team
Unit: NT\$	2,888,895	4,004,915	3,302,624	4,249,313	20,946,802

Preferential Subsidies for the Disadvantaged Groups

Chunghwa Telecom has long been subsidizing telecom services for the socially disadvantaged, and assuring their access to basic communications. The following are the main preferential plan and amount in 2020.

Preferential Plan	Preferential Content	Preferential Amount (NT\$ thousand)	Beneficiaries (persons)
Caring Series Rate Plan (Mobile)	<ul style="list-style-type: none"> Double communication hours from the original rate plan for the visually impaired, hearing impaired and speech impaired. 300 free SMS intra-network and 100 free SMS extra-network for the hearing and speech impaired. The intra-network image telephone rate is the same for 3G customers. 	390	123
Broadband Preferential Plan for Low-income Households	50% off on 16M/3M, 35M/6M, 60M/20M, 100M/40M, ADSL 2M/64K & ADSL 5M/384K monthly rate.	40,116	8,361
4G Mobile Data Plan for the Disabled	Disabled persons are entitled to an NT\$100 discounts for limited 399/436/499 plan, NT\$200 discounts on monthly subscriptions when subscribing to the 4G 599 plan and above plus Wi-Fi hotspots for free during the term of the contract.	132,519	58,505
Broadband Preferential Plan for the Disabled	<ul style="list-style-type: none"> 5% off on HiNet 16M/3M, 35M/6M, 60M/20M and 100M/40M monthly rate, 30% off for the announced rate of HiNet non-fixed monthly plan 15% off on ADSL 5M /384K monthly rate. 5% off for other speed rates. Monthly rate for non-fixed Internet plan lowered from NT\$280 to NT\$180. 	13,578	7,317
MOD Caring Project and Project for the Socially Unfortunate	<ul style="list-style-type: none"> Platform charges: A 50% discount (NT\$45/month) from the work completion date. Subscribers of the MOD self-choose package, family premium package, family advance package, family advance package B, family high-quality package, family special package, family popular package, family golden package are entitled to 30% discount, and the normal rate after the discount period expires. The above projects all apply to the socially unfortunate and the caring project has no time limitation, the project for the socially unfortunate provides discounts for the first 24 months after the work completion date. 	9,237	3,079
Healthy Net Plan	HiNet Adult Content Gatekeeper protects children from harmful websites such as pornography, violence, suicide, weapons, gambling, and drugs. The service in the first year is rendered to low-income households for free.	15	13
Welfare Public Telephone	<ul style="list-style-type: none"> Installed 110 cm from the floor in public areas for the convenience of the disabled. The keyboard was designed with embossing on the 5 key for the visually impaired, and a voice adjustment function (from 3db to 6db) was provided exclusively for people with hearing aids. A slot for inserting is designed on the side of an IC card for the convenience of the visually impaired. 		
Message Relay Service for the Hearing and Speech Impaired	All telephone messages will be translated and faxed to the service hotline 0800 - 080885 (Help Me in Chinese homonym). The service personnel will then relay the message in voice and return the message to the hearing and speech impaired caller (up to 80 words for the relay and up to 30 words for reply). Those who are not hearing and speech impaired may also call the hotline (0800-080880) for the relay of messages via fax to the hearing and speech impaired. The service hours are 08:00 to 21:00 daily.		

The Creation of Digital Opportunities

By utilizing our expertise in telecom technology, we will ensure that everyone shares the advantage of technology despite financial or social standing, or geographical location. In this way we hope to quickly achieve the objective of minimizing the digital divide and creating digital opportunity. In addition to previously described action plans and subsidy, different from those of other enterprises, we also contributed resources to developing related products and services to meet the needs of the disabled and allow them to realize their right of access to the digital technology and convenient lives.

Chunghwa Telecom Women's Basketball Team Gives Back to Communities

Established in 1974, Chunghwa Telecom Women's Basketball Team (CHT WBT) has been involved in "Love & Care Charity Tournament Series" for 10 consecutive years since 2011, hoping to convey the refreshing, healthy image of CHT WBT and the ESG philosophy of Chunghwa Telecom via the Series.

In 2020, to enhance its bonds with communities and in light of the epidemic, we presented "Basketball Kids Summer Camp - CHT WBT in the House" at Good Digital Neighbors to play basketball with kids in the communities like Changhua, Yilan, and Tainan. In addition, 3 games of "3-on-3 Basketball Charity Cup" were organized in Hsinchu, Taitung, and Pingtung, drawing nearly 400 teams across Taiwan. Hence, we promote the sport of basketball via basketball games while uncover young seeds here and there and inspire young students to dare to realize their dreams.



Placemaking Promotion - Click Taiwan Innovative Design Action

The CHT Foundation saw the manpower and resources in short supply locally while the local industries were limited in their developments. With 2020 as the starting point, we came up with the project of "Click Taiwan Innovative Design Action". Together with a social enterprise, we recruited designers with expertise in design and urban-rural development as well as teachers from universities and colleges. They were to team up and go into the designated communities. By tapping into their design power, the selected teams were to produce solutions for local industries jointly with their community partners. After a fierce competition in the selection process, three designer teams from NKNU, NKUST, and Asia University stood out.

Starting from August 2020, they went into the communities to engage dialogues locally. After brainstorming with multiple stakeholders, preliminary studies, design and development, prototyping, and the funding for realization in the end, they assisted Song Zhu Community in Lucao Township of Chiayi County, Liming Community in Neipu Township of Pingtung, and Paqeljing Social Enterprise from Tjuabal Tribe of Taitung to produce design solutions together. Also, they organized an offline exchange event, followed by an online salon, inviting Frank Hung, the author of bestsellers, and Qing-Yang Xiao, renowned designer shortlisted in Grammy Awards, to talk with each other and share their practical design solutions for placemaking.



Paqeljing Social Enterprise, Taitung County

- The original lines and colors of "Paqeljing" were softened to present a new logo that is more friendly and warm.
- In echo with the imagery of tenth anniversary, the "Gleaning Series" belly bands were designed with the earth tones and food ingredients introduced to promote the produce of the indigenous community.

Liming Community, Neipu Township, Pingtung

- To promote indigenous produce, the traditional mochi is fused with local produce (e.g. dragon fruit, peanuts, cocoa, butterfly peas, etc.) to give birth to the new mochi that is colorful and healthy. Ten corresponding mascots were designed as well to draw the younger population to buy the products.
- The brand identity, Liming Boutique, is created with the community's landscape, name, and local industry as the elements for the CIS.

Song Zhu Community, Lucao Township, Chiayi County

- The giftbox is designed with the "Song Zhu Cattle" by the elderly as well as story cards and a community map inside to arouse the nostalgic mood of the people away from home while invite new friends to pay a visit.
- The picture book of the community produced through field research preserves the local stories.

Community Network Tutoring—“Read with You”

Chunghwa Telecom has supported education and shown its concern for rural villages ever since 2009, in the aftermath of Typhoon Morakot. We extended our service to the permanent settlements and newly developed communities in the disaster zones. Using visual Internet technology, we delivered educational resources in the form of private tutorship in rural villages for the unfortunate. We hope to give the children of the next generation a learning environment which is safe, dignified, and hopeful.

Item	Description
Goal	By 2030, we hope to: <ul style="list-style-type: none"> Assist 5,000 students in the remote areas with network tutoring Accumulate more than 8,000 volunteers to participate in network tutoring Accumulate more than 150,000 training hours for tutoring volunteers training
Characteristic	<ul style="list-style-type: none"> Online education with one-on-one individual tutoring by university students helps pupils of junior high schools and primary schools in the rural villages to enhance their learning and provides equal learning opportunities.
Method	<ul style="list-style-type: none"> To realize the spirit of stakeholder engagement, we have cooperated with the Center of Care Services for Taiwan Rural Area Education at Fu Jen Catholic University. University students helped the cause with one-on-one tutoring to take care of the school children in the rural villages and disaster zones. Customized exclusive class supplements to care for the spiritual growth of schoolchildren through companionship, interaction and communication.
Participant	<ul style="list-style-type: none"> Taoyuan Dayuan Catholic Church, Taoyuan Guanyin Catholic Church, Chiayi Fu Jen High School, ihope Association of Tainan Assembly of God, Kaohsiung Daai Library, Pingtung Feng-Lin Church, Pingtung Chao Chou Boys Town, Hualien Yuli Library, Taitung Fukid Tribe, Taitung Luye Library, Taitung Kaulahan Association, Taitung Citong Library, Taitung Lanyu High School, and Matzu High School.
Major Result	<ul style="list-style-type: none"> University students improve the children’s learning outcomes with one-on-one individual tutoring of the school children in rural villages. They also took care of their need for personal communication and interaction. More than ten-years efforts by e-Tutor, it has helped several dozen students gain admission to national and private universities, including the National Yang Ming University and Taipei Medical University. Assistance to remote villages has really reduced the divide between the cities and counties, radically improved the opportunities available to the children and changed their lives.

Schoolchildren who have been Tutored	University Students as Tutors	Tutorial Hours	Participants in Summer and Winter Classes
3,152	4,863	97,105	2,980

1. The data period started from December 2009 to December 2020.
 2. The person-times and training hours for the mid- and long-term targets for volunteers were adjusted thanks to the early attainment of the program’s targets.

EYE Social Innovative Call Center—Innovative Technology for Hope

[Video](#)

Chunghwa Telecom has engaged in long-term cooperation with the Resource Center for the Visually Impaired at Tamkang University for more than 30 years and the EYE Social Innovative Call Center was set up in 2011. These joint efforts led to the unveiling of the first Total Solution in Taiwan. It includes research, development, and improvement of a computer-assisted telephone system, and its corresponding skill development, training, supervision for the needs of the visually impaired talents to offer the phone-services.

- In 2015, the Company completed an upgrade to the Taipei City 1999 hotline, making it user-friendly to the visually impaired. This upgrade included: a real-time notification system, a three-way call feature with voice recording, English/Japanese services, a verbal abuse referral feature, a call duration reminder, a health regulation inquiry feature, and a quick link to service sub-categories. These upgrades greatly improved the scope and efficiency of the service.
- By the end of 2018, the Total Solution had provided 8 working opportunities for the satisfaction surveyors of Chunghwa Telecom (including one visually impaired manager). And there were another 15 customer service personnel (12 visually impaired and 3 supervisors) for the Taipei City 1999 hotline.
- In 2020, we continued to supply job opportunities to CHT satisfaction survey personnel with “overall solutions”, producing approximately 5,500 valid questionnaires with a yield rate over 96% on a monthly basis. In average, the 1999 Citizen Hotline of Taipei City processed about 8,000 calls monthly with 10 external entities visiting the call center annually, which made it a model for the other call centers.
- We initiated new employment opportunities for persons with spinal injuries. Including one with severe injury serves as 4G visual assistance service personnel, i.e. assisting visually impaired people with image identification through 4G cloud services, which helps to promote the quality and independence for the visually impaired people’s daily life while providing employment opportunities for the severely disabled.

Assistance Application Development

We believe humanity to be the foundation of technology innovation. In 2013, we launched a Voice-based Personal Assistance App that was specifically designed for the visually impaired. The App incorporates image, voice, reading, and lifestyle functions to assist both visually impaired and elders to face some of their difficulties. We also successfully developed “i4Blind” app in 2016 that makes a great assistant to the visually impaired and the elderly in life. In 2020, the number of logins hit 510,000 with over 52,679 downloads and over 20 million viewings accumulatively.

Automated Voice Donations

The automated voice system for donations developed by Chunghwa Telecom Laboratories has proved to be helpful for charities, social welfare, cultural, educational, and environmental protection institutions. It gives donors a more convenient means of donation. A donor simply needs to pick up their cell phones, dial the short code, and follow the voice prompts to contribute care to those in need. In 2020, there were 8,235 donations, totaling NT\$4 million.

