

Smart CSR Leads Smart City



Chunghwa Telecom
2016 Corporate Social Responsibility Report



Editorial Policy 102-50,102-53,102-54

Welcome to Chunghwa Telecom’s 10th Corporate Social Responsibility (CSR) Report. This report is published in both Chinese and English on a dedicated CSR website. We hope to integrate the advantages of both paper-based and Internet-based reports to let those who care about us gain a better understanding of our CSR-related efforts and performances in 2016.

* CSR website: <http://www.cht.com.tw/en/csr/download.html>

Reporting Period

This report discloses the Company's CSR management policies, material issues, countermeasures, initiatives and results between January 1 and December 31, 2016. However, to ensure complete coverage, parts of the report include descriptions of initiatives and results outside the stated period.

References

Issuing Organization	Item	
The Global Reporting Initiative (GRI)	GRI Standards Core	
The Global Reporting Initiative (GRI)	G3.1 Telecommunications Sector Supplement	
International Integrated Reporting Council (IIRC)	International <Integrated Reporting> Framework	

Assurance

Content and data of this report have been reviewed and assured by SGS Taiwan Ltd. based on the “Core” option of GRI Standards for compliance with the Core elements of GRI Standards and AA1000 AS (2008) Type 2 High Assurance Standards and requirements of the Integrated Reporting <IR> Framework.

Feedback

If you have any feedback to share, please do not hesitate to contact us through:
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 GRI topic

 Chunghwa Telecom’s own topic

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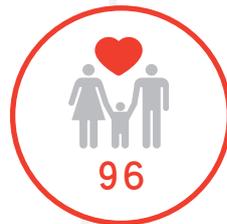
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Message from the Chairman

102-14

Thank you for taking the time to peruse Chunghwa Telecom's CSR report. To align with international trends, Chunghwa Telecom has adopted the practice of disclosing non-financial information based on the core option of "Global Reporting Initiative Standards" and "Integrated Reporting Framework" (IR) for its 10th CSR report. The report focuses on disclosing material topics of concern to stakeholders and is intended to demonstrate Chunghwa Telecom's management efforts and value creation capacities concerning the United Nation's sustainability issues.

Owing to the contribution of its employees, Chunghwa Telecom was able to deliver consolidated revenues totaling NT\$ 230.01 billion in 2016. In addition to achieving top business performance among peers, we value CSR as much as we value profits and growth. Under the leadership of the CSR Committee and contribution of all its employees, Chunghwa Telecom has made several key CSR accomplishments in 2016, including:

1. The only company in the Greater China Region chosen for DJSI - World and DJSI - Emerging Markets at the same time for the 4th consecutive year
2. Won the World Branding Awards 2016-2017
3. Awarded the highest rating in TWSE/TPEX Information Disclosure Evaluation for 10 consecutive years
4. Rated among the top 5% in TWSE's corporate governance evaluation for two consecutive years
5. Ranked among the top 10 in CommonWealth Magazine's "Corporate Citizen Awards - Large Corporations" for 10 consecutive years
6. Won the 12th Global Vision CSR Award – The Exemplar Award by Global Views Monthly Magazine
7. Obtained a long-term credit rating of "AA" from S&P and a long-term/short-term credit rating of "twAAA/twA-1+" from Taiwan Ratings

In addition to its efforts in corporate governance, environmental protection and social responsibilities, Chunghwa Telecom continues to utilize its information and communication technologies to help Taiwanese businesses realize sustainability goals and exert a positive social influence.

Meanwhile, Chunghwa Telecom actively supports the nation's digital economy policies and broadband infrastructures, and has envisioned itself as "the motivator of digital economy and the pilot of the creative industry" by promoting high-quality, diverse and cross-platform digital streaming services. 4G is a highly competitive service in Taiwan, and as we anticipate competition to remain intensive in the future, Chunghwa Telecom moved ahead of its competitors by opening up the 2600MHz band in 2016, and thus increased network capacity for higher quality 4G services for the benefit of consumers and corporate customers. In the meantime, the Company has executed a comprehensive IoT strategy and expanded industry alliance to include businesses such as information security, energy, optoelectronics, etc. to inspire more creative applications and business models. So far, revenues from information security and cloud services have increased by more than 42% annually, while revenues from IoT service have also grown by 43%. Creative services and businesses are still expected to contribute revenues and profit growth over the next 3 to 5 years.

To respond and capitalize on the low-carbon opportunities endowed by the Paris Agreement, Chunghwa Telecom has been taking steps to transform itself into a green enterprise. The Company has participated in the "4G Smart City Broadband Subsidy Program" organized by the Ministry of Economic Affairs, in which the Company collaborations with 15 city/county governments to create a convenient, healthy and friendly city through technology. Also, Chunghwa Telecom has contributed its advantage and expertise as an information and communication leader to fulfill its 5G (Green) vision: "Green Energy, Green Procurement, Green Operations, Green Stores and Green Supply Chain." It strives to become a green enterprise with a balanced focus between business development and environmental protection.

In terms of sustainable actions, Chunghwa Telecom purchased 4 million kWh of green electricity in 2016, ranking first in the Information and Communication Technology (ICT) industry and second nationwide. The Company has also been active in the development of renewable energy, and installed 42 solar energy stations throughout Taiwan. In 2017, the Company's solar power plants are expected to achieve a total capacity of more than 500kWp. Furthermore, we are planning to turn all our service centers nationwide to Green Stores to provide more green products and services to consumers. Chunghwa Telecom expects revenues from green products and services to exceed NT\$ 1 billion by 2020.

While pursuing innovation, Chunghwa Telecom also ensures the citizens' rights to basic communications. We support the United Nation's Sustainable Development Goals (SDGs) and the government's "DIGI+" program by contributing to people's rights to broadband Internet access. Our actions in this respect include construction of fiber optic networks, infrastructure development in remote areas and the creation of an environment that facilitates digital innovation. It is our commitment to narrow the digital divide and create digital opportunities. We build and maintain broadband networks in 84 remote locations throughout Taiwan, which helps the indigenous people connect to the world and earn income in the form of tourism and agriculture. Through Chunghwa Telecom Foundation's long-term programs such as "Digital Community" and "Click Taiwan," we utilize technology to inspire a cycle of decency and enhance Chunghwa Telecom's connection with residents in various parts of Taiwan.

In the future, Chunghwa Telecom shall commit to its "pioneer" brand spirit and devotion of "value and responsibilities," and inspire a cycle of decency by delivering performance not just in profits, but in terms of environmental protection and social inclusion as well. Through integrative thinking, we hope to propose solutions that are mutually beneficial to the society, the environment and the industry, and continue building our reputation as "the most valuable and trustworthy ICT company" with our expertise, technologies, and visions.

Chairman of the Board

Yu Cheng





Determining Materials and Stakeholders

102-40,102-42,102-46

We intend to provide all stakeholders concerned with the future of the telecommunication industry and Chunghwa Telecom with a more comprehensive understanding of how Chunghwa Telecom has exerted its industry influence on CSR issues. This purpose has improved the quality of our actions and disclosures.

Process for Determining Materials Issues

Step.1	CSR Secretariat is responsible for collecting the materials including international guidelines, sustainability rating survey, international benchmark (ex. GRI 3.1 Telecommunications Sector Supplement), etc. to support the meeting of sustainability report.
Step.2	Through opinions, feedback and external questionnaires, we re-assess short/medium/long-term CSR goals and accomplishments, then review our strategies, management practices, measures, responses, and possible adjustments and improvements of our goals.
Step.3	Based on internal consideration, industry status, industry chain practice, and the recommendation of stakeholders, we asked CSR Group members to confirm the potential impact of the material issues within and outside the organization, in other words, the positive, negative, or potential impact on the economy, environment, and society, and later invite key parties within and outside the organization to conduct discussion and disclose the impact.
Step.4	We assemble an assessment team consisting of members from related departments to identify the materiality matrix on the ground of internal and external information.

Boundaries of Material Issues

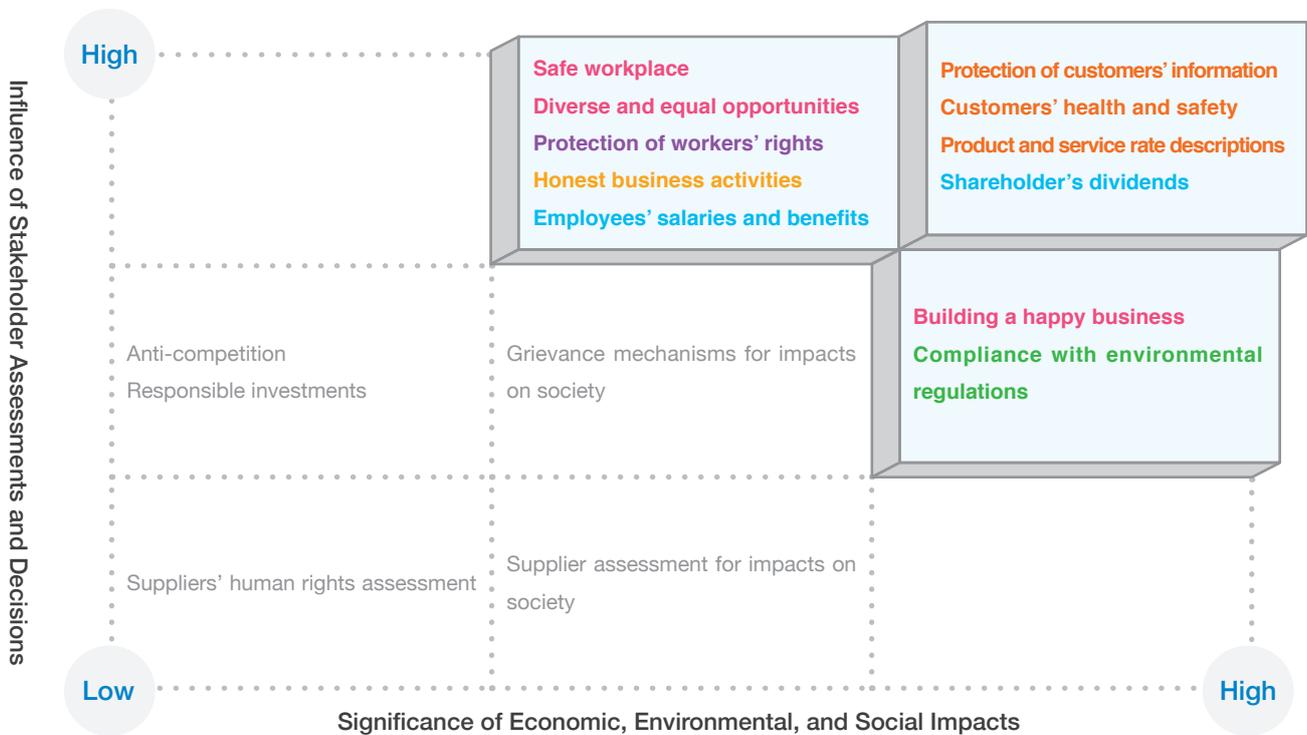
Within the Organization



Outside the Organization

Sustainability Aspect	Material Issues	CHT	Honghwa (Subsidiary)	Customers	Suppliers	Competitors	Communities	Shareholders /Investors
Economic (EC)	Shareholder's dividends	v						v
	Employees' salaries and benefits	v	v					
Labor Practices and Decent Work (LA)	Safe workplace	v	v					
	Diverse and equal opportunities	v	v					
	Building a happy business	v	v					
Product Responsibility (PR)	Customers' health and safety	v		v				
	Product and service rate descriptions	v	v	v		v	v	
	Protection of customers' information	v	v	v				
Human Rights (HR)	Protection of workers' rights	v	v					
Social (SO)	Honest business activities	v	v		v		v	
Environmental (EN)	Compliance with environmental regulations	v			v		v	

Materiality Matrix



Note: The materiality threshold has been set at 2.6 and above for both the X-axis and the Y-axis (maximum: 3) Chungghwa Telecom is also willing to disclose issues that are not identified as material issues in 2016, please refer to p.118 and take note of the themes with the asterisk (*).

Integration with Stakeholders

Identification of key stakeholders and issues is the main focus of implementing CSR. By preparing the conference of CSR reports, we invite members from all departments to exchange the issues related to current key stakeholders and their concerns. Upon reaching mutual understanding, the result is incorporated into a table which in turn is regarded as the essential reference for preparing the disclosure in the report.

In the process of promoting CSR activities or information disclosure, we consult the opinion and recommendation of the internal and external stakeholders, important relevant mechanisms including

- CSR report "consultation meeting with external professionals."
- Invite external professionals to "CSR Conference" and host relevant forums on an irregular basis.
- Host the "Supplier CSR Interchange Meeting" on the annual basis.
- The first to create "CSR videos" to record the implementation of CSR actions on a regular basis, and collect internal and external feedback for further improvement, <http://www.cht.com.tw/portal/csr>
- Specialists designated for CSR and the CHT Foundation.



* Chungghwa Telecom Stakeholder Engagement Guidelines: <https://goo.gl/zYhhM8>

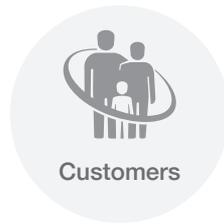
Notes to Material Issues in 2016 102-43,102-44,102-47



Shareholders/
Investors



Employees



Customers



Suppliers

Meaning to Chungghwa Telecom	As shareholders/ investors are the holders of Chungghwa Telecom, we must be accountable to them.	Employees are critical to the sustainable development and they are the driving force for sustainable growth.	Only when customers prefer the products and services of Chungghwa Telecom could we have value for existence.
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Communication Channel	Stockholder hotline, IR website, Results call, Roadshow	E-mail, Telephone call, Online forum, Labor-employer meeting	Service hotline, Customer service center
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Communication Frequency	Immediately, Quarterly	Immediately	Immediately
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Material Issue	01	02 03 04 05 09	06 07 08	10 11
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Sustainability Aspect	Economic (EC)		Labor Practices and Decent Work (LA)		
Material Issues	01 Shareholder dividends	02 Employees' salaries and benefits	03 Safe workplace	04 Diverse and equal opportunities	05 Building a happy business
Meanings to CHT					
GRI Material Topics	Economic Performance	Market Presence	Occupation Health and Safety	Diversity and Equal Opportunity	Employment
MA	p.20	p.72	p.78	p.74	p.81
UN SDGs*	 		 		

Note: "UN SDGs" are the Sustainable Goals of United Nations, more introductions please refer to p.10-13.



Communities /NPOs

We wish to feedback to society with our professional standing in telecommunication and create a better future.

E-mail, Hotline, Press release, Press conference

Immediately



Media/Rating Agencies

We've learned and grown with the media and rating agencies through their mentorship in sustainable development.

E-mail, Hotline, Press release, Press conference

Immediately



Supervision Organizations

Our products, services and related marketing behaviors are subject to audits by the competent authority.

E-mail, Official document, Meeting, Telephone call, Visit

Immediately



Competitors

We wish to engage in fair competition in the industry for a healthy development of the industry.

Official document, Meeting

1 to 2 times per year

07 10 11

09 10

10 11

07

Product Responsibility (PR)

Human Rights (HR)

Social (SO)

Environment (EN)

06

Customers' health and safety



Chunghwa Telecom assures consumers' health and safety by complying with regulations. It offers multitude of Internet security solutions to mitigate the negative effects of telecommunication services.

Customers' Health and Safety

p.68

07

Product and service rate descriptions



We provide our customers with the most accurate product and service information to obtain the solutions they need quickly. This good service also helps the Company maintain our professional image.

Marketing and Labeling

p.59

08

Protection of customers' information



We utilize various processes and systems to enhance the protection of consumers' data to eliminate leakage and unauthorized access to information systems and data by unauthorized persons.

Customers' Privacy

p.61

09

Protection of workers' rights



Chunghwa Telecom is the only telecommunications carrier in Taiwan to have established and signed a collective bargaining agreement with a union. This initiative not only complies with local laws and international human rights conventions, but also demonstrates our commitment to safeguard the rights and interests of employees.

Forced or Compulsory Labor

p.74

10

Honest business activities



Chunghwa Telecom conducts business operations to the highest ethical standard. In addition to complying with regulations, the Company requires all its employees to adhere to a higher moral standard in their business conducts.

Anti-corruption Marketing and Labeling

p.43, 59

11

Compliance with environmental regulations



We have envisioned the Company as becoming a green and sustainable business. We strive not only to comply with environmental regulations, but to contribute to the greenness of the ICT industry and society as a whole.

Compliance with Environmental Regulations

p.84





United Nations Sustainable Development Goals

As one of Taiwan's largest communities and the leader of its industry, Chunghwa Telecom has chosen to respond to the 2030 Sustainable Development Goals (SDGs) of the United Nations since 2015. Through actions, we have demonstrated to stakeholders the level of commitment Chunghwa Telecom has for CSR, as well as actual contributions and determination towards global sustainability goals.

Material Issue	SDGs
<p>Shareholder dividends</p> <p>Honest business activities</p> <p>Diverse and equal opportunities</p>	<p>Goal 8</p> <ul style="list-style-type: none"> Achieve higher levels of productivity through diversity, technological upgrade and innovation. Achieve equal pay for equal work and productive employment across the entire population, including young adults and disabled persons, by 2030. <p>Goal 11</p> <ul style="list-style-type: none"> Enhance inclusiveness, tolerance and sustainability by 2030, and achieve nationwide participation in urban planning and management in a way that is both participatory and inclusive. Reduce the level of average adverse environmental impact per person in urban areas by 2030. Facilitate positive linkage between urban, suburban and rural areas in social, economic and environmental aspects. <p>Goal 12</p> <ul style="list-style-type: none"> Encourage business to adopt sustainable strategies and include sustainability actions and information into the reporting cycle. Promote sustainable public procurements in accordance with national policies and priorities. Develop and utilize tools to measure how job creation, local cultural development and sustainable tourism contribute to sustainability.
<p>Notes to product and service rate descriptions</p> <p>Protection of customer's information</p> <p>Customer health and safety</p>	<p>Goal 9</p> <ul style="list-style-type: none"> Establish economic, social and environmental connections between remote areas and the outside world. Upgrade infrastructure, improve resource efficiency, and adopt more environmental protection technologies and processes by 2030. Launch fully affordable and available Internet services in least developed countries by 2020. <p>Goal 17</p> <ul style="list-style-type: none"> Enhance global sustainability partnership; gather and share knowledge, specialties, technologies and financial resources to support developing nations in reaching their sustainable goals. Apply experience, resources and strategies to encourage and facilitate effective cooperation between state, private sector, citizens and the society.
<p>Building a happy business</p> <p>Safe workplace</p>	<p>Goal 3</p> <ul style="list-style-type: none"> Promote physical and mental health through prevention and treatment measures by 2030. Ensure availability of health services, including information and education about child birth by 2030. Achieve nationwide health protection, including access to insurance coverage, quality and affordable drugs and vaccine. Escalate early alerts and enhance management capability for national and global health risks. <p>Goal 8</p> <ul style="list-style-type: none"> Eliminate forced labor, child labor and any form of illegal employment by 2025.
<p>Protection of workers' rights</p> <p>Diverse and equal opportunities</p>	<p>Goal 5</p> <ul style="list-style-type: none"> Elimination of discrimination against women. Assure women's right to political, economic, and public decisions of all levels, and provide them with equal opportunity to all levels of leadership. Enhance women's abilities through ICT applications. Promote gender equality and raise women's power through state policies and laws. <p>Goal 10</p> <ul style="list-style-type: none"> Achieve social, economic and political inclusion by 2030, regardless of participants' age, gender, disability, race, ethnicity, nationality, religion, economic or other status. Progressively maintain and increase income of the bottom 40% population, while ensuring that the rate of increase is above national average before 2030. Assure equal opportunities and reduce inequalities through proper laws, policies and actions.
<p>Compliance with environmental regulations</p>	<p>Goal 7</p> <ul style="list-style-type: none"> Collaborate with global institutions on the acquisition of clean energy sources and related technologies before 2030, including infrastructure investments relating to renewable energy. <p>Goal 12</p> <ul style="list-style-type: none"> Achieve sustainable management and use of natural resources by 2030. Develop chemical and waste management practices in accordance with international rules by 2020, while significantly reduce chances of emission and negative impacts. Reduce the volume of waste produced by 2030 through means such as prevention, reduction, recycling and reuse. <p>Goal 13</p> <ul style="list-style-type: none"> Enhance a nation's ability to recover from and adapt to natural disasters and climate risks. Raise awareness and tighten control over climate risks; enhance early alert measures and improve responsiveness on an individual and organizational level.

Note: As far as Chunghwa Telecom is concerned, the terms “state,” “nation” and “country” mentioned in UN SDGs refer only to Taiwan; as for the term “population,” the focus is primarily on our permanent employees.

* Sustainable Development Goals: <https://sustainabledevelopment.un.org/sdgs>

We support the government’s “DIGI+” initiative, which includes the following strategies: DIGI+Infrastructure - creation of an environment that enables digital innovation; DIGI+Talent - development of digital/creativity talents; DIGI+Industry - supporting industry transformation through digital creativity; DIGI+Right - building an advanced nation of digital rights and open online community; DIGI+Cities - creating smart cities through collaborative efforts of the central government, local governments, industries and academe and DIGI+Globalization - raising Taiwan’s significance in the global digital service economy.

Chunghwa Telecom’s Contribution to SDGs		Chapter Page
 <ul style="list-style-type: none"> Goal 8 The creation of Chunghwa Telecom Laboratories to encourage innovation and business ventures and make the industry more diverse. Being the only telecommunication company in Taiwan to join NGMN, Chunghwa Telecom constantly strives to gain control over the next generation communication technology. The implementation of robust compensation, welfare and union systems to ensure equality between men and women.  <ul style="list-style-type: none"> Goal 11 The development of smart city solutions to enhance analysis and the management of economic, environmental, and social information within city. Assurance of 4G service in every corner.  <ul style="list-style-type: none"> Goal 12 Regular publication of CSR report and innovative communication channels. Full-scale green procurement and goals. The construction of Chunghwa Telecom resorts throughout the country to encourage experience of local culture and natural environment. 	<p>Responsible Governance p.30</p> <p>Employee Care p.70</p>	
 <ul style="list-style-type: none"> Goal 9 Chunghwa Telecom is the most active local carrier making services available and affordable to the public. The Company has invested the largest amount of resources to date. More than NT\$ 400 million were spent in 2016 to make services accessible to the public. The Company offers discounts to the socially disadvantaged and disaster-influenced victims. More than NT\$ 30 million of discount was offered in 2016.  <ul style="list-style-type: none"> Goal 17 The Company has implemented communication and collaborative channels that are transparent and consistent with stakeholders’ needs; it is actively involved in industry associations and new development projects. The Company is the first telecommunications carrier to begin “supplier CSR management” and regular meetings are held for this purpose and sustainability training. Chunghwa Telecom plans to introduce its proprietary green label in 2017, and encourage all its suppliers to apply for the green label as part of the green procurement system. 	<p>Marketing Services p.58</p>	
 <ul style="list-style-type: none"> Goal 3 The first telecommunication company in Taiwan to adopt OHSAS 18001 - Occupational Health and Safety Management System. The Company has a specialized occupational safety and health department in place. The Company has robust and comprehensive systems in place to check and manage employees’ health.  <ul style="list-style-type: none"> Goal 8 The Company has a robust human resource policy and an international management system in place to prevent all forms of forced labor. 	<p>Employee Care p.70</p>	
 <ul style="list-style-type: none"> Goal 5, Goal 10 Chunghwa Telecom is the only telecommunication carrier in Taiwan that has a “labor union” to look after employees’ interests. The Company values and enforces gender equality laws; it protects and promotes women’s right to fair employment and promotion. The Company enforces gender equality by implementing sexual harassment prevention rules, handling policies and by establishing a “Complaint Investigation Committee.” The Company offers parental leave and extended unpaid leave benefits that exceed regulatory requirements as a means of promoting work-life balance. We have a robust compensation and welfare scheme in place to keep employees’ salaries above local regulatory requirements. 	<p>Employee Care p.70</p>	
 <ul style="list-style-type: none"> Goal 7, 12, 13 The Company has launched a 5-year sustainability program along with many environmental actions to fulfill its goal as a green enterprise.  <ul style="list-style-type: none"> 5G (Green) strategy: Green Operations, Green Energy, Green Stores, Green Procurement and Green Supply Chain. Chunghwa Telecom has been active in the reduction and reuse of energy and resources; new infrastructures are being constructed to broaden the use of renewable energy and reduce greenhouse gas emission. We are constantly introducing new solutions to mitigate disasters and minimize climate risks to its data centers.  <ul style="list-style-type: none"> The Company targets the low-carbon industry by actively investing in solar power and renewable energy applications. Its proprietary solar power facilities are expected to reach a capacity of 500kWp in 2017. 	<p>Green Enterprise p.84</p>	



Contribution of ICT Industry to SDGs

Chunghwa Telecom has been exploring ways for the ICT industry to contribute to SDGs based on the System Transformation Report published by GeSI in 2016 and SMARTer 2030. These efforts have led to the identification of existing commercialized products and services through which Chunghwa Telecom may contribute to SDGs.

#1 Business Case

E-banking

Hami Wallet :

The App incorporates several mobile payment and card features and has accumulated nearly 10,000 downloads to date. The App has approximately 40% active customers and aims to accumulate one million users by 2017.

Smart manufacturing

Chunghwa Telecom Cloud ERP :

Via comprehensive module, the enterprise economizes the time and cost of developing MIS human capital, servers, computer facilities and software. In this regard, the manufacturing process is precisely controlled and thus enhances capacity and quality of production.

#2 Business Case

Connectivity

- Use of ICT technology to create an intelligent network, and use of cloud computing to realize Internet of things (IoT) and to provide highly effective energy management and analysis.
- Smart micro-grid: Integrated control and monitoring over the generation and distribution of renewable energy (such as wind power, solar power, etc.), thereby enabling optimum energy distribution and management.

Smart energy

Building Automation: Use of cloud system to manage and analyze building energy consumption for more efficient management of energy load and more efficient use of energy.

Smart water management

Intelligent energy service (iEN): Provides water monitoring, measurement and management services that helped Tainan City Government resolve water leakage and successfully reduced water consumption by 70%.

#3 Business Case

Traffic control & optimization

- Smart traffic management: Use of “cloud system” to gather traffic data, footage and monitor events in real time, while at the same time improve the energy efficiency of the metropolitan transportation system.
- Provides taxi fleets with real-time positioning and monitoring by incorporating LBS (location-based service), digital map service, 3G/4G mobile network and cloud service.



According to the research by “Global e-Sustainability Initiative” (GeSI), digital solutions are critical to realizing the 17 sustainability development goals (SDGs) and the 169 secondary goals of the United Nations.



#4 Business Case

Smart agriculture

- Intelligent energy service (iEN): Provides an optimum growth environment for crops and fish farms, improving both product quality and quantity.
- “Agricultural cloud” - Provides consultation service to farmers, thereby enabling precise management of crop growth for higher production capacity and better resistance against risks.

Smart building

- “Chunghwa Telecom Smart Building” automation system - Named “Top 7 Intelligent Communities” by the “Intelligent Community Forum” (ICF).
- “Chunghwa Telecom eHOME” - A solution that incorporates ICT applications and cloud technologies to accomplish smart building, energy conservation and sustainability. More than 7,000 households currently adopt the solution.

#5 Business Case

E-government

The Company assists the government in creating an information security defense system and is the only information security supplier to be rated “Excellent” by the National Information and Communication Security Taskforce, Executive Yuan, in the SOC monitoring and penetration categories.

Smart security

The Company assisted the government in the creation of the “165 Anti-scam Hotline. “The Company assisted the Criminal Investigation Bureau, National Policy Agency, in disconnecting 1,713 phone numbers and successfully stopped 1,396 scams in 2016.

Real-time disaster warnings

The Company’s proprietary “Disaster Emergency Response and Reporting System” sent more than 320,000 disaster alerts via SMS in 2016. We also helped develop a Public Warning System (PWS) that was activated 4,367 times for landslides, earthquakes and roadblocks in 2016.

#6 Business Case

E-health

The Company’s proprietary Internet of Things (IoT) platform is vertically integrated with the healthcare industry chain to solve problems such as isolated health records and difficulties involving cross-regional services and payments.

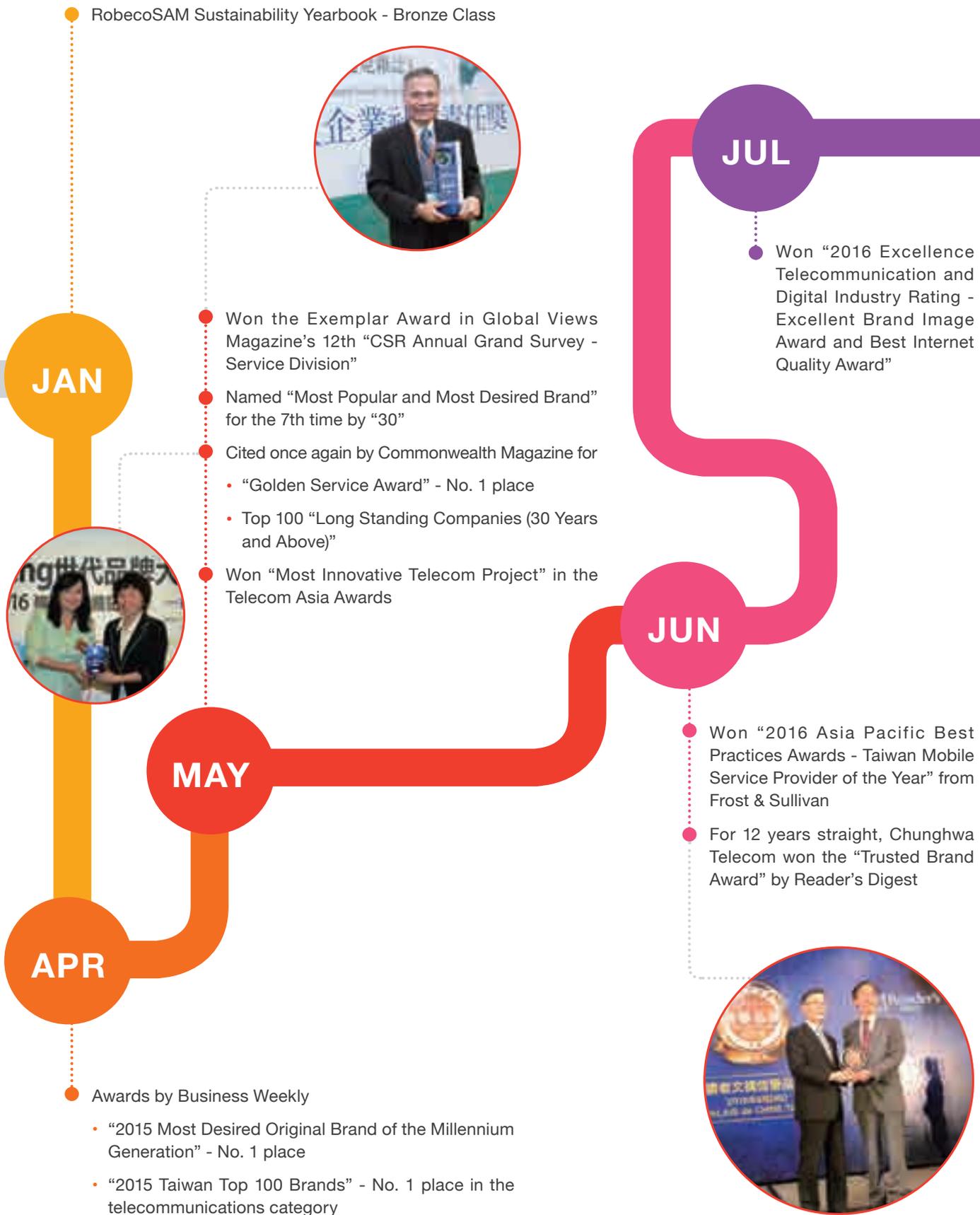
E-learning

Digital Community: A total of 76 Digital Communities were deployed throughout the nation and at remote islands to provide community computer classrooms in areas where people lack the resources but have the willingness to learn.

Read with You: An online teaching solution where university students are assigned to provide one-to-one remote education for students living in remote areas, and thereby improve learning outcomes and promote equal opportunities. As of today, the program has matched 1,851 junior companions and 2,931 senior companions to complete 64,245 teaching hours.



CSR Milestones in 2016



AUG

- The Data Communications Business Group won the title of “Senior Information Security Professionals” for the third consecutive year in “Asia-Pacific Information Security Leadership Achievements” (ISLA) Award
- Ranked among the top 10 “Excellence in Corporate Social Responsibility” for 10 consecutive years



NOV

- Awarded by British Standards Institution (BSI) in 2016 for
 - IT Service Management Pilot Award
 - Information Security Management Pilot Award
- Platinum Award for 4 consecutive years in The Asset Corporate Award
- Won “2016 APCCAL Awards - Best Customer Experience Management in Taiwan”
- Won five major awards in Taiwan Corporate Sustainability Award, namely: “Taiwan Ten Most Sustainable Company, Transparency and Integrity Award, Supply Chain Management Award, Social Inclusion Award and Taiwan Top 50 CSR Report - Information, Communication and Broadcasting Gold Award”



SEP



- Selected for Dow Jones Sustainability Indices - World Index and Emerging Market Index
- Claimed two major awards during the 8th “Sports Sponsorship Award”
- National winner (Taiwan) of the 2016-2017 “World Branding Awards”

DEC

- Business Today’s “Best Brand Award” for 9 consecutive years
- Won “Corporate Vision Award” during the Green Power Recognition event organized by the Ministry of Economic Affairs
- The MOD advertisement video won Corporate Image Award and Digital Goods Bronze Award during the “39th Times Asia-Pacific Advertising Awards”



Responses to Critical Issues in 2016

Issue #1: Concerns Toward the Emission of Electromagnetic Waves from Base Stations

Service providers are compelled to provide good quality voice transmission and fast mobile connection to the Internet. However, some citizens still have concerns about the electromagnetic wave. As such, people tend to request for the removal of base stations already installed as “electromagnetic waves will jeopardize our health” even though the landlord has agreed with the installation. The valid cognitions about electromagnetic wave are:

1. The electromagnetic wave emitted from the base station is non-ionizing radiation and the electromagnetic particle entails very low energy. It will not give out heat or cause damage to the cell molecules of organisms. As such, it will not affect the health of human beings.
2. The measurement of the electromagnetic wave 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 must be less than $0.9\mu\text{W}/\text{cm}^2$ at 1,800MHz. Modern users typically leave cell phones on almost 24 hours a day. As long as the cell phone is on, the device will continuously emit electromagnetic waves to keep its connection with the base station; in other words, “users are exposed to more electromagnetic wave from cell phones than from base stations, by as much as one thousand times and above.”

According to “Global Mobile Consumer Trends,”

the global population averages 40 cell phones uses per person, per day.

According to a report by World Health Organization (WHO), exposure to base stations and Wi-Fi signals does not affect human health; currently, there is no scientific evidence to suggest harmful effects of electromagnetic waves emitted from base station on the human body.

As described above, the electromagnetic waves generated by base stations are not as damaging as rumored. There are many professional websites, local and abroad, that support this claim. However, any resident who has concerns regarding base stations near their home can request a complimentary measurement of the strength of the nearby electro- magnetic waves by calling 0800-580-010.

* Electromagnetic wave: <http://www.emfsite.org.tw/>



Issue #2: Qishan Work Accident

One of Chunghwa Telecom's contractors was assigned to lay optic fiber cables in Qishan District, but due to lack of proper ventilation inside the manhole, the workers inhaled hazardous gas, causing one injury and one death. The accident was escalated through the major accident reporting system as soon as it occurred. We then coordinated fully with the Labor Inspection Division to make the necessary improvements, and supervised the contractor to compensate the victimized workers and family members.

Improvement meetings

- The Company organized a "Safety, Health, and Self-Management Seminar" in collaboration with the Labor Inspection Division.
- Representatives from cable-laying contractors were gathered to review and revise procedures for working inside limited spaces.
- The Company coordinated with relevant parties to organize a "Review Conference for Limited Space Work Activities and Major Accident Cases"; a total of 76 people participated in the conference.

Education and training

- The contractor gathered all employees for re-training, and rehearsed the proper procedures for working inside limited space and at elevated positions.

1. Definition of "confined space"

(According to article 19-1 of the Regulations Of Occupational Safety and Health Facility)

- The space that is not provided for the workers to perform regular jobs.
- Space where the accessing is restricted.
- Space where sufficient and clean air cannot be maintained by natural ventilation method.

2. Confined space operating hazard prevention measures

- Before starting the work, check if the worker's physical status and the air change device are presenting any abnormal signs. In the meantime, it is also required to examine the concentration of the oxygen and the harmful gas at the job site.
- The oxygen in the operating space shall be appropriately replenished, and the oxygen concentration of the operation site shall be over 18%.
- When performing the dangerous oxygen deficiency operations, it is required to assign more than one supervising person and the rescue crew to the job site.
- All workers shall receive the required safety and hygienic education and training.
- Check and replace the operations and test equipment on a periodically.





Corporate Overview 102-3,102-4

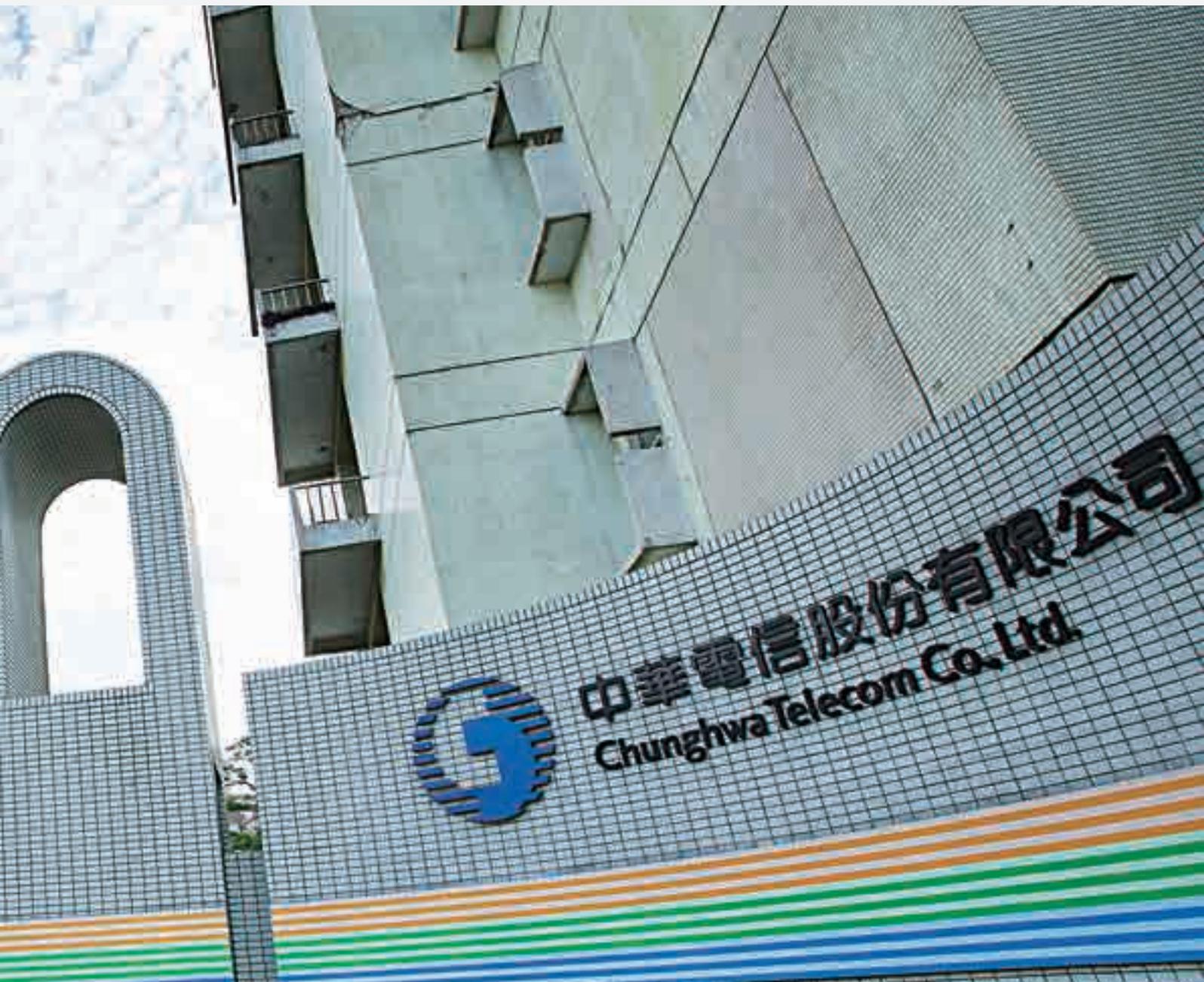


Chunghwa Telecom is the largest integrated telecommunication carrier in Taiwan. Our head office is located at 21-3 Hsinyi Road, Section 1, Taipei. In August 2005, we became a privatized company as the ownership by the government was reduced to less than 50%, and the management system officially transformed from a state-owned enterprise to a privately-owned enterprise.

Our main business consists of three major areas: fixed, mobile, and data communications, providing voice services, private circuits, Internet, broadband Internet, smart network, virtual network, e-commerce, corporate customer integration ICT services and various value-added services. There are 742 service locations. We use the best network and service quality as the backing to create intelligent communication environments and exciting yet convenient digital lives for our users. Chunghwa Telecom is also an important business partner of other international telecommunication carriers. We have been actively involved in different “corporate social responsibility” conducts in recent years, and have won the appraisal of many domestic and international professional organizations consecutively.

* Three Telecom Laws: <http://goo.gl/678ya>

* The main business of the branches and re-investments: <https://goo.gl/v2iGs6> (p.F2-F16)



We Will



Enhance the operational efficiency of corporations.



Create a gateway to an enjoyable digital life for people.



Facilitate industry scale to expand in a good way with our contribution.



Allow investors to enjoy business profit while receiving compliment from consumers.

Creating Value for Shareholders

Chunghwa Telecom generated consolidated revenues totaling NT\$ 230 billion in 2016, decreased 0.8% from 2015 and represented a 98.5% accomplishment rate given the current year's financial forecast. Due to increasing popularity of smart mobile devices, the Company experienced growing revenues from value-added services, sales, and data subscriptions that covered the decline of voice service. Net income attributable to parent company amounted to NT\$ 40.1 billion while EPS reached NT\$ 5.16 and a full-year accomplishment rate of 100.2%.

In 2016, Chunghwa Telecom's tax expenses were equivalent to an effective tax rate of 16.51%; the difference from the 17% statutory tax rate was mainly attributed to the following: according to Article 4 of Income Tax Act, net dividends or net earnings recognized from local invested businesses are exempted from income tax; and Article 10 of Statute for Industrial Innovation.

Total Number of Employees in the Company Including Subsidiaries	32,856 persons
Paid-up Capital	77,574
Revenue	229,991
Operating Cost	147,552
Operating Expense	33,838
Employee Salaries and Benefits*	47,750
Dividends Paid to Shareholders	42,551
Taxes	9,023
Expenses of Social Investment/Donation*	1,038
Retained Economic Value	(2,973)

Unit: NT\$ million

*Operating costs and expenses included



For You, Always Ahead

In 2016, Chunghwa Telecom witnessed its 4G users exceed **6.71** million, which is a significant milestone for Taiwan's mobile communication and digital convergence industry.

Domestic Fixed Communication 31.6%

	Customer Population	Market Share
Local Network	10.94 million	93.5%
Long-distance Network	26.57 million (traffic volume)	83.0%
Broadband Subscriber	4.48 million	75.0%
MOD	1.33 million	20.4%

Mobile 48.2%

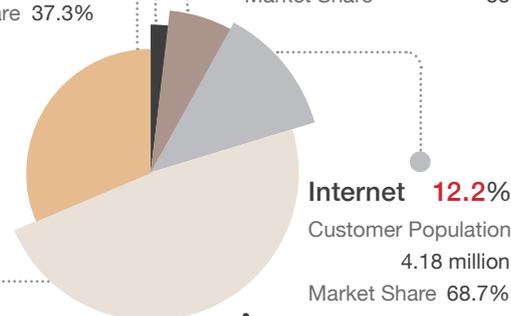
Customer Population
10.79 million
Market Share 37.3%

Other Accounts 1.7%

Traffic Volume 10.22 million
Market Share 55.8%

Internet 12.2%

Customer Population
4.18 million
Market Share 68.7%



Business
Performance

Contribution
of Business



- Domestic fixed network service
- Domestic leased line service
- Internet and value-added service
- MOD (IPTV) service
- International fixed network service



- Mobile communication service
- Wi-Fi service
- International fixed network service



- Integrated service
- Data security service
- Mobile service
- Date service
- International service
- Diversified integrated payment service



Business Model



Products and Services



Mobile Subscriber

Customer population **10.79** million
Annual growth rate at **-3.5%**



Mobile Internet

Customer population **6.85** million
Annual growth rate at **14.8%**



100Mbps

Customer population **1.17** million
Annual growth rate at **11.1%**



4G

Customer population **6.71** million
Annual growth rate at **52%**



FTTx

Customer population **3.48** million
Broadband market share **77.8%**



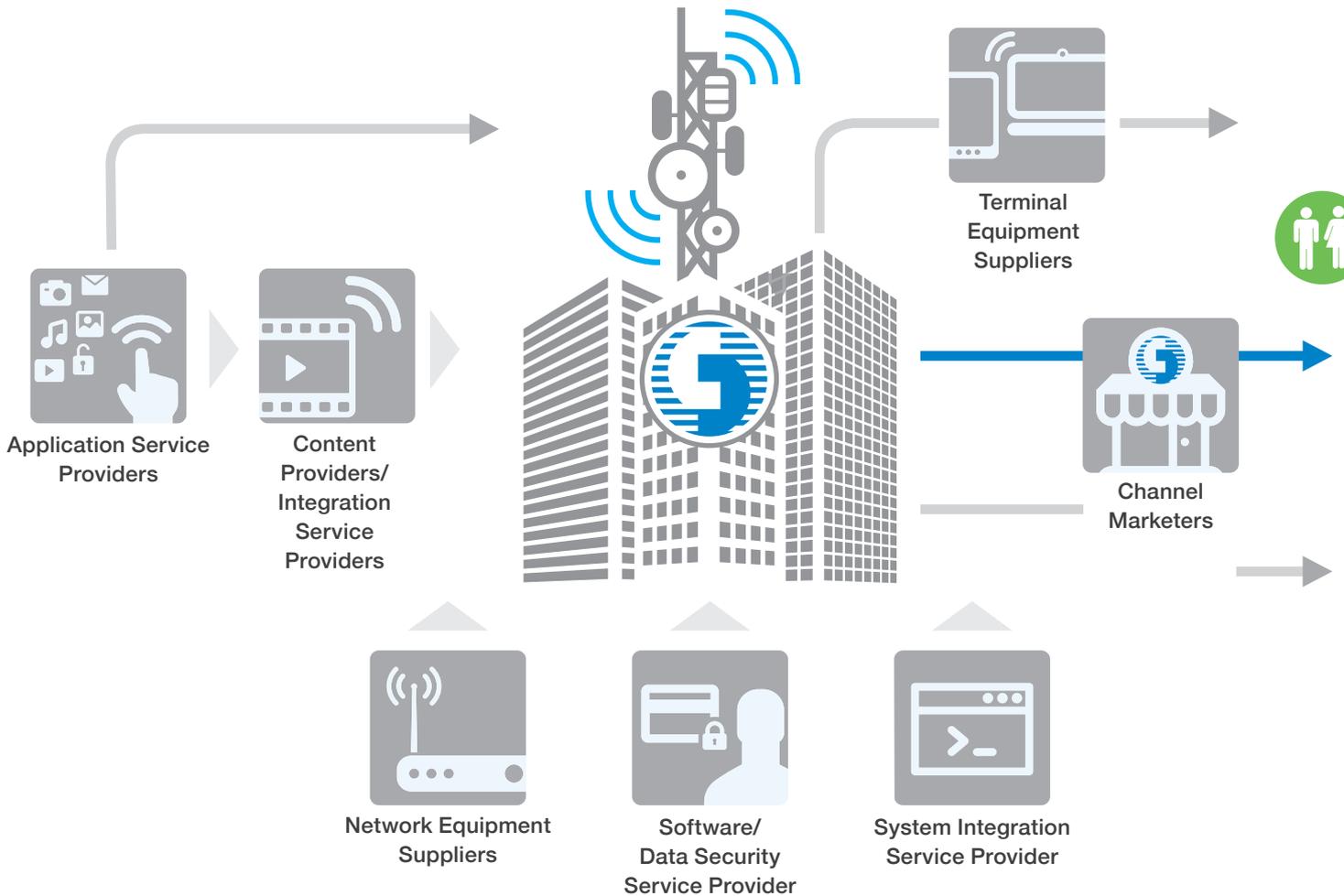
HiNet/Broadband

Customer population **3.76** million
Market share in the **first** place

Telecom Value Chain and Key Performance ¹⁰²⁻⁹

Due to technological advancements, boundaries of specialized markets that we used to know of are starting to shift, thus allowing industry participants to compete outside of their dominant markets. IDC has even combined ICT, e-Commerce, Electronics and Entertainment into a new segment called eICT to recognize the increasingly common cross-industry collaboration.

The wave of digital convergence brings new values to the telecommunication industry and opportunities to meet users' needs by offering innovative eICT services, which makes content providers/integrators, application service providers, network equipment suppliers and terminal equipment suppliers the important value partners to a telecommunication carrier when developing digital convergence services.



Strategies for Value Chain Management

Strategy 1

Securing the core telecommunication service

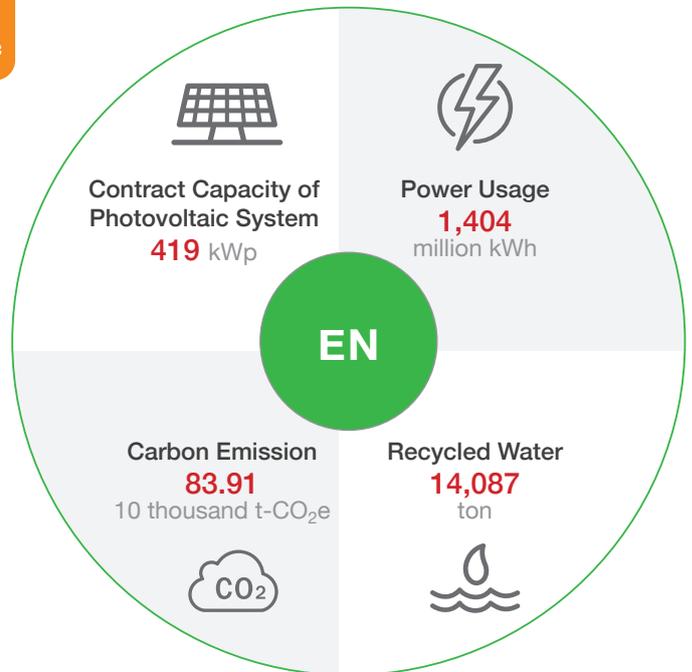
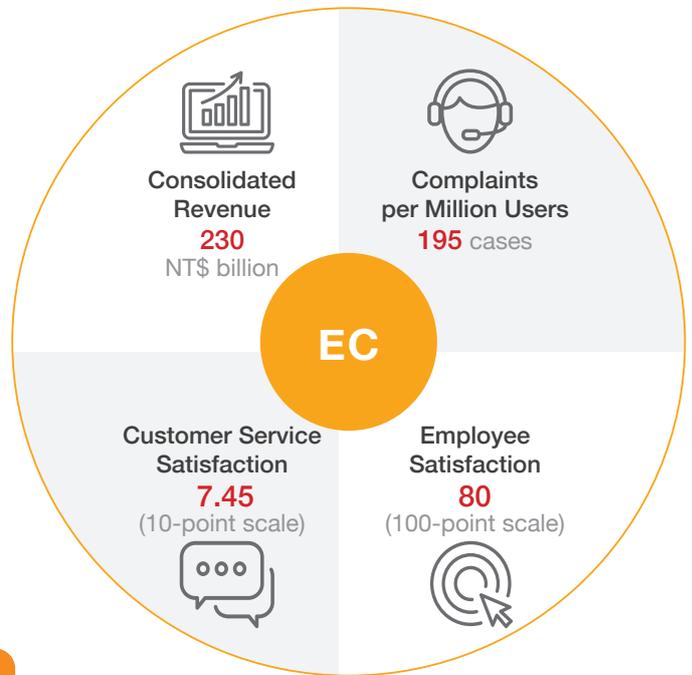
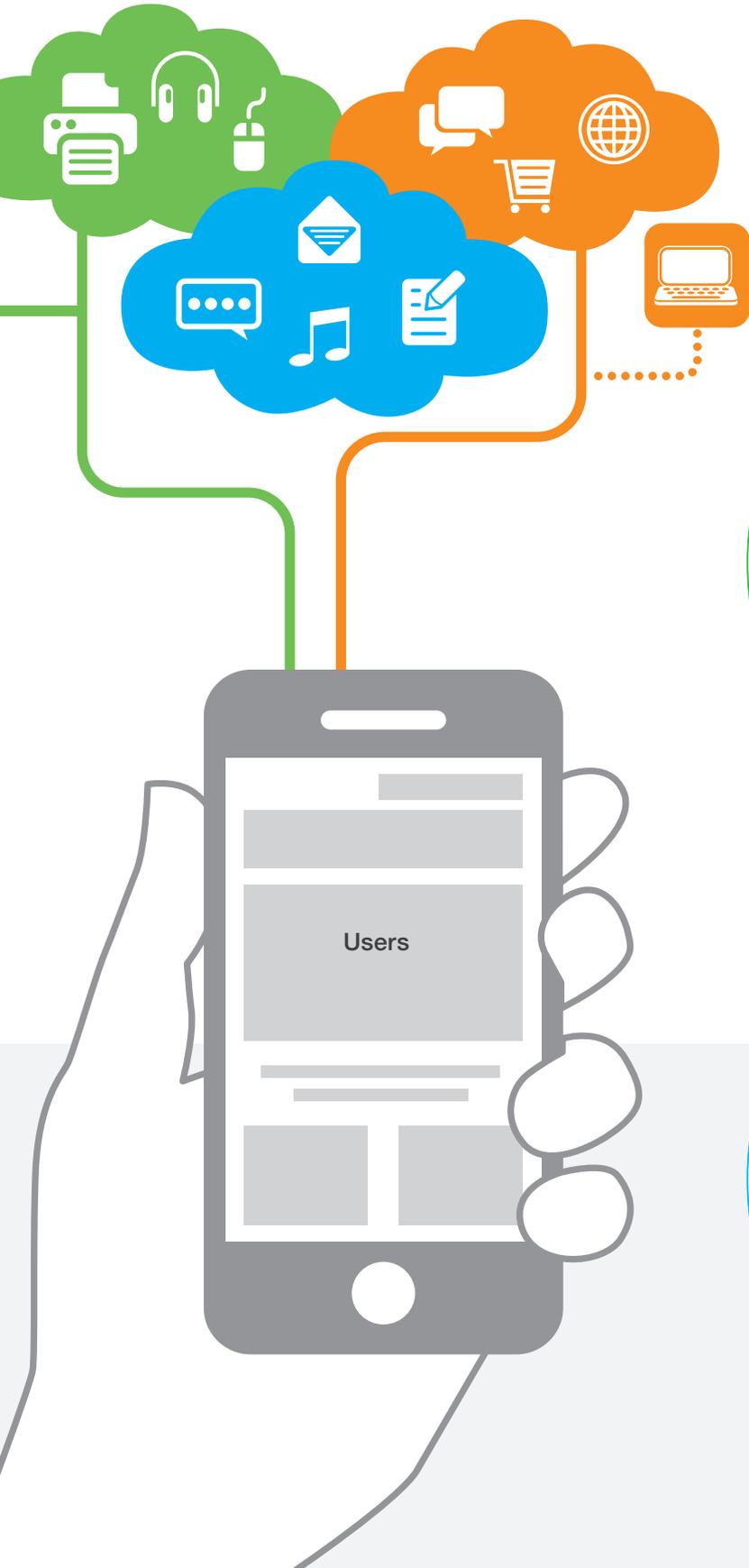
- Provide digital convergence service to the 3 main markets: personal, household and enterprise
- Fiber optic broadband, mobile value-added services, IoT, information security, corporate mobility, big data applications and cloud/IDC

Strategy 2

Expand business partnership through alliance, cooperation and investment

- Type II telecommunications: Chief Telecom Inc.
- Distribution: Senao International Co., Ltd.
- System integration: Chunghwa System Integration Co., Ltd.
Chunghwa Sochamp Technology Inc.
- Digital contents: Spring House Entertainment Tech. Inc.
Chunghwa International Yellow Pages Co., Ltd.
Smartfun Digital Co., Ltd.

In the future, Chunghwa Telecom will continue investing in fixed network, mobile, data and eICT framework and strengthen collaborations with upstream, midstream and downstream industry suppliers to offer best services to our customers. By tightening coordination among the upstream, mid-stream and downstream, we shall be able to provide users with better quality service experience.





Capital and Value Creation

In order to give stakeholders a clearer picture of how Chunghwa Telecom creates value, we have incorporated the concept of “Integrated Reporting” into this year’s CSR report and disclosed our commitment and management through the Integrated Reporting Framework.

Capital	Impact on Value Creation	Resource Allocated to Sustain Value Creation
 <p>Financial Capital</p>	<ul style="list-style-type: none"> • Assures eligibility to licensing (e.g., 4G bands) • Provides sufficient financial resources to support value creation efforts • Effective execution of commercial activities • Generates and allocates other forms of capital, including distribution of shareholders’ equity, investments, and capital expenditure 	<ul style="list-style-type: none"> • Contribution of tax revenues to the government • Support development of network infrastructures • Improve quality of telecommunication services
 <p>Human Capital</p>	<ul style="list-style-type: none"> • Employees’ knowledge and skills in the telecommunication field • Human capital represents one of our major operational driving forces 	<ul style="list-style-type: none"> • Introduce compensation and incentive schemes to attract and retain talents • Encourage high value-adding services and innovations • Talent training and development programs
 <p>Intellectual Capital</p>	<ul style="list-style-type: none"> • Licensing, laboratory and R&D expense; acquisition and development of industry technologies • Invest and maintain Chunghwa Telecom’s brand 	<ul style="list-style-type: none"> • Continually invest in R&D, construction and services; maintain service quality and customers’ satisfaction • Invest in the R&D of new technologies and involve in the setting of new protocols
 <p>Production Capital</p>	<ul style="list-style-type: none"> • Allocate financial capital to develop and maintain infrastructure facilities • Operation of Internet Data Center (IDC); installation of wireless facilities and development of software and applications 	<ul style="list-style-type: none"> • Continually construct, maintain and operate network equipment • Exercise procurement control and acquire network equipment that is more cost/energy efficient • Consolidate idle spaces; recycle and dispose of obsolete equipment
 <p>Social Capital</p>	<ul style="list-style-type: none"> • Maintain communication with the authority, which helps ensure the legitimacy of the Company’s operations and competition • Positive feedback from consumers and the general public help build Chunghwa Telecom’s brand credibility, and minimize financial capital outlays 	<ul style="list-style-type: none"> • Communicate with stakeholders to understand their concerns and legitimacy of the Company’s operations • Commit effort into social engagement and social inclusion; exert influence through core activities to narrow the digital divide
 <p>Natural Capital</p>	<ul style="list-style-type: none"> • We need natural capital such as raw materials, and energy sources to operate and allocate human capital • Use of energy-saving actions and solutions can effectively reduce consumption of natural capital 	<ul style="list-style-type: none"> • By procuring environmental friendly products, we can minimize consumption of natural resources and raise energy efficiency • Through the use of carbon management actions, we are able to manage energy consumption and apply renewable energy solutions to a greater extent • Proprietary and commissioned construction of Photovoltaic system; focus on the development of renewable energy sources

We have identified 6 categories of capital that would affect Chunghwa Telecom's value-creating abilities. We have also explained the types of resources/relationships we need to commit to creating values continually, as well as the outcome of our efforts.

Input & Expense (NT\$ thousand)

Output of Sustainability Performance

- Share capital **77,574,465**
- Capital expenditures **23,516,783**

- Salary and welfare expenses **47,749,908**
- Training expenses **529,744**

- R&D expenses **3,784,905**
- Marketing expenses **25,515,844**

- Network and communication equipment maintenance expenses **14,345,387**
- Base station installation expenses **5,022,710**
- IDC equipment installation expenses **282,605**

- Social investment **586,972**
- Universal services **451,459**

- Procurement of green energy **4,240**
- Green purchases **1,379,000**
- Environmental management expenses **286,734**

EC

Earnings per share (EPS)	NT\$ 5.16
Consolidated operating revenues	NT\$ 230 billion
Information transparency	We also ranked among the top 5% in TWSE's corporate governance evaluation for 2 years
Member of DJSI	Both DJSI World and DJSI-Emerging Markets for the fourth time
Market share in 4G	Provide service to 6.71 million customers

SO

Employees:	
Employee salary and welfare	NT\$ 47,750 million
Average salary adjustment	Salary adjustment averaged 0.81% , the highest of which was 1.68%
Average training hours per person	46 hrs
Total training expense	NT\$ 529,744 thousand
Corporate volunteer service hours	13,436 hrs
Occupational accident per thousand people	0.86 for men/ 1.71 for women (1.39 nationwide)
Diversity	795 employees with disability (mandatory quota: 212); 41 employees of indigenous background
Employee Satisfaction	80 (100-scale point)

Customers and Communities:	
Care for disadvantaged telecom users	A total of 7,808 users were covered, with subsidies amounting to NT\$ 33,435,000
Availability of telecommunication service	The Company's 12Mbps broadband service achieved more than 96% coverage
Wi-Fi hotspots	55,000 public Wi-Fi hotspots
Consumer satisfaction	7.45 (10-point scale)
Satisfaction toward customer service hotline	4.64 (5-point scale)
Voice-based personal assistance app for the visually impaired	15,373 downloads by the end of 2016
The Digital Good Neighbor location	There were 76 Digital Good Neighbor locations at the end of 2016

EN

Power usage	1,404 million kWh of power in 2016; our power-saving efforts have saved total 3.05 trillion kWh of power.
Revenues from green product	NT\$ 6.36 billion
Carbon emission	839,172.07 t-CO ₂ e
Water usage	2,479 kiloliter
Green server grade	LEED Gold-rated data center
Waste volume	4,706 tons



Industrial Risks and Operating Strategies

102-15

Industrial Risks

- The Executive Yuan has devised the “Digital Nation and Creative Economy” program that sets goals to increase 1G coverage to 90% by 2020, and 2G coverage to 90% by 2025. This government initiative will impact the Company’s financial performance and competitiveness of its broadband service
- There will be more liberal amendments to digital convergence-related laws. Instead of chartering or licensing, new businesses simply need to register to provide similar services. This low barrier of entry will intensify competition in the current environment
- Competition of the mobile broadband (4G) market remains intensive
- Demands for conventional voice call service continue to wither
- Cable TV and other fixed network operators have resolved to aggressive price cuts in an attempt to gain a share in the broadband market, which has caused a significant shift in customers



Telecom Industry



Digital Convergence



Internet of Things



Information Security



Key Industrial Issues

According to Digital TV Research, the value of over-the-top (OTT) services in 2015 had amounted to NT\$ 872.3 billion worldwide and is expected to exceed NT\$ 1.7 trillion by 2020

Value of the IoT economy is expected to reach US\$ 11 trillion by 2025, US\$ 1.7 trillion of which will be contributed by the infrastructure, US\$ 1.6 trillion by healthcare, US\$ 1.2 trillion by retail and US\$ 900 billion by logistics

Driven by cloud computing and mobile applications, demands for information security in Taiwan are expected to grow from NT\$ 31.2 billion in 2014 to NT\$ 46.9 billion by 2018 at a compounded average growth rate of 10.7% per annum



Response in Terms of Products and Services

Value-added communication service, intelligent man-machine interactive technology, location-based application and content service, e-commerce and lifestyle, video streaming

IoT platform, driving behavior analysis, smart production solutions, health cloud

Identification solution, enterprise information security solution

In order to capture the unlimited opportunities presented in the era of digital convergence, Chunghwa Telecom will continue to invest in the development of related technologies. In the meantime, we recruit, train and empower talents for the various tasks involved. By consolidating network and marketing resources and working closely with strategic partners, the Company shall aim to introduce new products and services that satisfy customers' needs, and build its reputation as "the motivator of digital economy and the pilot of creative industry" for the benefit of its customers, shareholders, employees and the society.



Chunghwa Telecom

Responding Strategies

- Assemble corresponding groups to prepare and anticipate changes in competition in response to new regulations
- Utilize advantages such as brand image, distributions, customer base, and technologies to create new digital convergence opportunities for the 3 main markets: personal, household and enterprise
- Explore value-added service opportunities for the broadband market; analyze customers' demands for ICT service and satisfy them with matching solutions
- Stay involved in new technology applications including smart city, smart production, IoT, smart traffic management, smart green energy management, smart security, smart building and smart home
- Support the government's creative initiatives including the "Asia Silicon Valley Development Plan" and develop brand leadership in Taiwan's IoT service.
- Develop creative, value-added emerging services such as IDC/cloud, IoT, information security, and corporate mobility; support industry growth and evolution



Big Data

According to forecasts made by research institution IDC, global market value for Big Data and analysis is expected to reach US\$ 187 billion by the end of 2019

Mass data computing, storage and analysis solution



Cloud Computing

The size of cloud computing service is estimated to grow from US\$ 45 billion in 2016 to US\$ 73.1 billion in 2019

Virtual data center solution, integrated ICT equipment monitoring solution



Smart Broadband

According to data published by Small Cell Forum, shipment of small cells had reached 14 million units as of May 2016; demand for Small Cell is expected to reach US\$ 6 billion in 2020

LWA (LTE-WLAN Aggregation) solution, telecommunication cloud server positioning and resource planning, multi-band carrier aggregation, voice and broadband supply/installation package, smart traffic volume forecast

Risks, Opportunities, and Mid/Long-term Strategies

The 6 CSR sub-units have also clarified the risks and opportunities associated with each of the key value creation factors, and proposed short-term, mid-term as well as long-term plans in response to current and future challenges.

Key Factors to Creating Value	Risks	Opportunities
 Standardization and development of 5G technology	5G technology will bring bandwidth to everywhere and everything, and would require substantial costs to license radio bands and construct the needed infrastructures. This investment may yield poor return if the billing model is not adjusted properly	Progression into the next generation of communication technology requires well-developed technical background and solid foundation; both of which are part of Chunghwa Telecom's existing competitive advantage
 Supplier CSR training	Due to rising CSR awareness, industry leaders have been assigned the responsibility to guide the entire supply chain towards fulfilling CSR. Failure to do so would compromise the leader's brand image and reputation	<ul style="list-style-type: none"> The Company has the potential to lead or influence CSR development across the telecommunication supply chain Reduce suppliers' risk exposure to environmental or human rights-related issues, thereby minimize possible incidents and disputes
 Collaborate with suppliers on CSR initiatives	The Company also needs to collaborate with suppliers on new CSR initiatives for broader and more profound effects. Failure to do so would compromise future opportunities or affect social relations	<ul style="list-style-type: none"> Collaboration with suppliers on CSR initiatives By engaging supply chain partners of different industries and specialties, we are able to raise our social image and brand value
 Subsidies for the socially disadvantaged (low-income households and persons with disabilities)	Broadband subsidies for the socially disadvantaged (low-income households and persons with disabilities) would result in loss of revenues	Long-term subsidies to the socially disadvantaged not only assure them of their basic right of communication, but also help raise corporate image
 Renewable energy- powered base stations at remote locations	<ul style="list-style-type: none"> Disclosing the locations of base stations may result in protests by residents, and eventually forces the Company to remove its infrastructure Solar power, wind power, and renewable energy sources, in general, are unable to provide consistent power supply over the long term 	Provide power for emergency communications at remote areas in situations such as natural disaster or unexpected power disruption, and thereby promote the Company's social image
 Climate changes affect base station communication	Climate change causes extreme weather conditions; major natural disasters often disrupt base stations in remote areas	Through robust network planning, design and construction, Chunghwa Telecom will be able to improve the resistance of its base stations against disasters
 Disruption of knowledge transfer	The average age of employees is increasing. A significant number of employees are due for retirement over the next 10 years, which may affect transfer of knowledge	<ul style="list-style-type: none"> Recruit to quickly cover the talent shortage Devise succession plans
 Recruitment of new-generation talents	Low fertility rate affects the overall workforce structure and makes good talents and rare skill workers increasingly difficult to find	<ul style="list-style-type: none"> Take accurate count of Chunghwa Telecom's talent shortage in the emerging and growing businesses, and attempt to recruit talents from campus Devise a recruitment plan
 Enhance workplace health and safety within the Company and among suppliers	Failure to enforce occupational safety and health management renders existing protection measures ineffective	<ul style="list-style-type: none"> Review, re-establish, execute and improve the workplace safety and health management system Enforce the occupational safety and health management strategy; offer rewards as incentives for achieving top performance in occupational safety and health management

Possible Challenges	Short-term Plans	Mid/Long-term Plans
The 5G standards have yet to be defined, and it is uncertain as to which band is available and needed. It is difficult to estimate product development timelines at this point	Engaged international organizations for grasp over the direction of technological trends; keep track of government policies and band plans; perform system simulations and develop experimental networks to build up early advantage in new technologies	Connect with global technology, make plans for future band requirements, construct backhaul and the 5G environment
Suppliers vary in size, talent, and awareness; investigate and maintain records of suppliers that may not yield the expected results	Invite supply chain partners to participate in courses and offer broader variety of learning topics based on course feedback	Perform one-on-one CSR communication and trainings for suppliers that are influential to the environment and society
<ul style="list-style-type: none"> Without long-term relationship, there would be no mutually beneficial grounds to engage suppliers in sustainability initiatives, which reduces the Company's efforts to one-time events and hence contributes little to the shaping of corporate value It takes long-term engagement, working relationship, and trust to explore common grounds and the right CSR initiatives that can be communicated and executed with suppliers 	Introduce Chunghwa Telecom's proprietary green label, and encourage all suppliers to apply for green label as part of the green procurement system	Take counts of green label-certified suppliers. Record and review performance on a yearly basis to find the best method of collaboration with suppliers
Many persons with disability have been considered as high-income earners; providing subsidies to them may give rise to concern for fairness	Refine the existing subsidy plan to direct broadband privileges toward the socially disadvantaged	Explore subsidy policies and solutions that are beneficial to the society and the Company
<ul style="list-style-type: none"> Renewable energy-powered base stations are costly to construct; these investments may produce minimal yields because of the low power generation efficiency Infrastructures are harder to construct and maintain in remote areas 	Expand constructions of solar power facilities, including proprietaries and commissioned constructions. The capacity of proprietary solar power plants estimated to exceed 500kWp in 2017	In the future, the Company will focus on raising power generation efficiency while paying attention to government policies; new infrastructures will be constructed on a yearly basis at carefully chosen locations
<ul style="list-style-type: none"> Additional construction costs are required to make base stations more resistant to natural disasters After installing disaster-resistant equipment (e.g., power generator), the Company may be required to perform regular maintenance and drills to the dislike of local residents 	<ul style="list-style-type: none"> Provide backup power supply to extend service duration of base stations in the event of a power disruption Organize base station disaster prevention and rescue drills to enhance employees' response to disasters 	Continue deployment of wired and wireless routers to improve the reliability of the network
<ul style="list-style-type: none"> Complex business portfolio takes time to sort out Talents for emerging businesses such as cloud computing, information security and IoT are in short supply Managerial staff take longer time to train 	Take accurate count of key staff who are due for retirement and develop succession plans accordingly	<ul style="list-style-type: none"> Develop a talent development plan and speed up development of mid-level and senior management reserves Identify successors for key roles and direct line managers who are due for retirement
<ul style="list-style-type: none"> Talents for emerging businesses such as cloud computing, big data and 5G are in short supply Salary offered to talents of emerging businesses and for rare skills are not attractive enough 	Recruit talents for emerging businesses such as cloud computing, big data and 5G	Continually invite talented students to be involved in Chunghwa Telecom's operations and recruit those who are suitable
Disruption of knowledge transfer undermines the Company's management efforts, thus results in lack of training or inefficient execution of current strategies	<ul style="list-style-type: none"> Adopt occupational safety and health management as part of daily activities Engage and inspire employees in the planning and enhancing occupational safety and health management system on a larger scale 	Continuously invest resources into the promotion of occupational safety and health management system (OSHMS) and progressively make "hazard prevention and health management" part of the audit system



Responsible Governance

102-18



Chunghwa Telecom Board of Directors is the highest governance body, with the Chairman also acting as the Chief Executive Officer. The Board of Directors is responsible for appointing and nominating high-level managers, as well as formulating company corporate social responsibility, corporate citizenship, and sustainable development strategies. The Board has 13 directors. To date, there are 3 women and 10 men. Director's period of office is three years (June 24, 2016~June 23, 2019). All of the independent directors are included in the Auditing Committee to ensure the independence of governance and the perspectives of the stakeholders.

Chunghwa Telecom's independent directors and outside directors provide expertise based on their respective areas of practice and professionalism, to assist the Board of Directors in making decisions as to benefit the company and the shareholders. To prevent financial losses from third party litigation for directors and supervisors, we have purchased indemnity insurance for Directors and Supervisors.

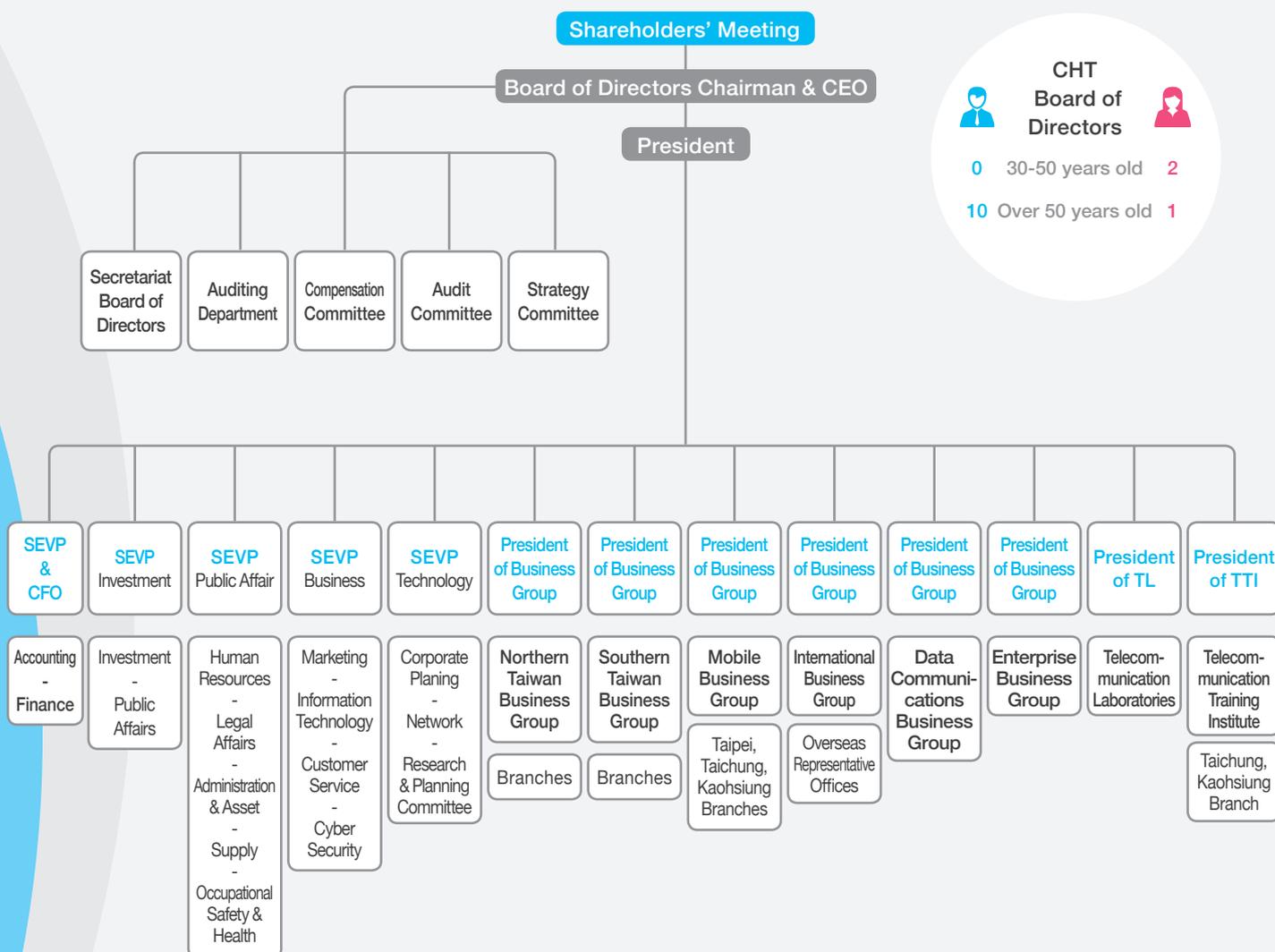


Board Diversity

Chunghwa Telecom values diversity in Board of Directors and recruits talents primarily based on skill sets. Selection of directors is not limited to any particular gender, nationality or ethnicity. Directors are expected to offer industry experience and expert knowledge to complement the board.

* Members of the Board of Directors: <https://goo.gl/v2iGs6> (p.85-86)

* Advanced studies of the Board of Directors: <https://goo.gl/xAfPO3> (p.67-68)



CHT Board of Directors

0 30-50 years old 2

10 Over 50 years old 1

Audit Committee

Consisting of the independent directors, who's main duties are to select or dismiss CPA, determine CPA's compensation, review and discuss quarterly/semi-yearly/annual financial report, review internal control system and revise/examine the appropriateness of the internal control statement.

Strategy Committee

Consisting of 8 board members, who are responsible for budgeting, increase/decrease of capital, increase/decrease of reinvestment and withdrawal of investment, acquire or surrender licenses, restructuring, mid- long term development plans and other important issues. A review meeting is convened and the resolutions are submitted to the Board of Directors for final approval.

Compensation Committee

Consisting of 3 independent directors, responsible for the evaluation of the performance of directors and managers, and determine the appropriate wage compensation policies, systems, standards and structures.



Avoidance of Conflict of Interest ¹⁰²⁻⁵

Chunghwa Telecom’s director is responsible for the election of Chief Executive Officer and Directors in which a nomination system is adopted based on relevant provisions and articles of Securities & Exchange Act, which directors and shareholders nominate candidates with qualified shareholdings, and director’s nomination and review is conducted accordingly. We have adopted the following control measures to prevent conflict of interests.

- Directors and all signed Consent to Act as Director announced that they follow the Section 23 of Company Act.
- All directors have to sign the Statement to show that they clearly knew the content of Section 206 of Company Act.
- The section 17 of Rules of Procedure of Board of Director defines the things that directors should recuse themselves with.

Due to the directors’ high ethical standards and self-discipline, in the operation of the mechanism, no conflict of interest has occurred since the Board of Directors was established. The Board has resolved to approve a total of 50 articles of “Code of Corporate Governance for Chunghwa Telecom”, while all departments are required to implement the Code of Conduct, and the secretariat also evaluates on a regular basis.

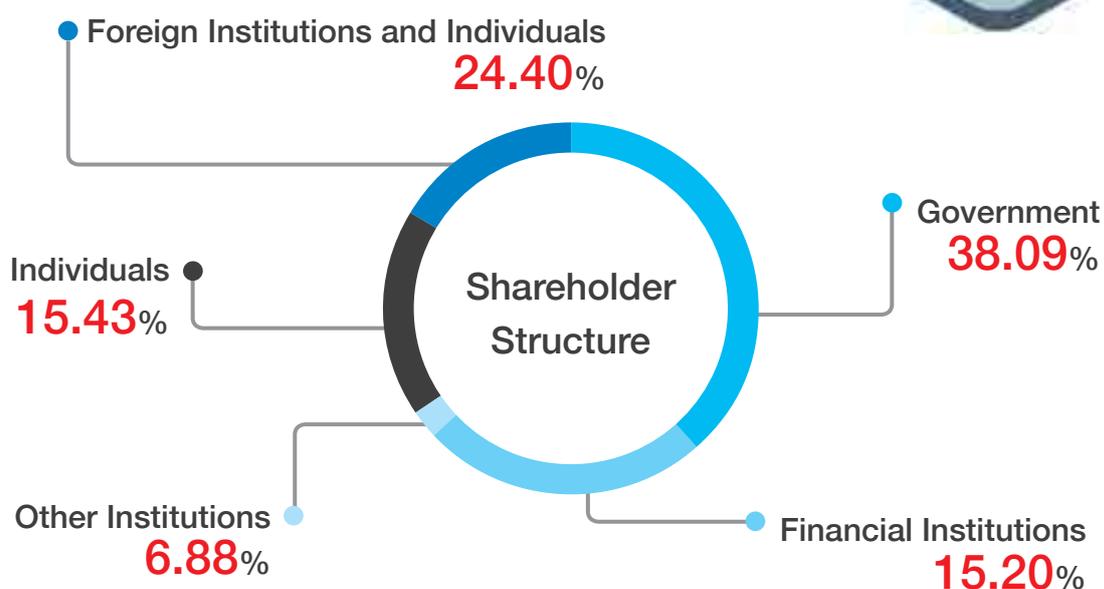
* Code of Corporate Governance: <http://www.cht.com.tw/en/aboutus/meetcog.html>

Encourage Shareholders to Participate in Corporate Governance

Chunghwa Telecom has conducted changes and revisions on some systems and measures based on a corporate governance mindset, including e-voting, voting by poll and disclosing the meeting resolutions on the Company’s website. With diversified voting channels, shareholders can exercise their rights effectively, and the corporate governance effectiveness is then enhanced.



Shareholder Structure of Chunghwa Telecom



Date of data: 2016.07.23 (The most recent book closure date)

Supporting Global CSR Initiatives and Guidelines ¹⁰²⁻¹²

We willingly comply with principles of The UN Global Compact in terms of human rights, we respect and uphold all basic rights recognized in the world, and refrain from any disregard or neglect of such rights. Regarding terms of employment practices, we protect workers' freedom of association, while recognize and support their rights to negotiate with the employer. We are dedicated to eliminating all forms of illegal labor and discrimination.

Chunghwa Telecom has publicly disclosed its human rights policy and emphasized the importance of human rights issues. It has a system in place to address violations and will continue to adopt human rights protection as part of its corporate policy and openly state its respect towards human rights. The Company reviews human rights issues on a yearly basis, and keeps detailed records of internal findings concerning the human rights policy, including: child labor, rights of indigenous people, and supplier human rights assessment. Current practices are audited regularly with findings suggested for review and correction by relevant departments.

Chunghwa Telecom's Telecommunication Training Institute organizes human rights-related courses on a yearly basis and whenever there is a change in labor regulations and policies. 10 courses totaling 43 hours were held in 2016; 362 employees had participated in these courses.

* Chunghwa Telecom Human Rights Policy: <https://goo.gl/GAJ9oX>

Support of International Conventions and Fulfillment of Human Rights Obligations

- Chunghwa Telecom is a participant of World Conference on International Telecommunications, and is bound to comply with "International Radio Regulations." The regulation lays down rules concerning: freedom of communications, transparency of global roaming charges and competition, support of telecommunication in developing nations, telecommunication services for persons with disabilities and people's freedom of speech over telecommunication networks.
- UN Declaration of Human Rights, ILO Convention on the elimination of all forms of discrimination and prohibition against forced labor and child labor.
- UN International Covenant on Civil and Political Rights and International Covenant on Economic, Social, and Cultural Rights; we are dedicated to promoting human rights awareness and assuring respect and fair treatment to all stakeholders.
- UN Guiding Principles on Business and Human Rights, for which a human rights due diligence investigation is being conducted accordingly.





CSR Management

We launched the implementation of sustainability management mechanism since 2006, and established “CSR Committee” to stipulate sustainable policies, using a top-down approach to achieve our sustainable actions.

Chunghwa Telecom’s sustainable development strategy is utilizing corporation’s unique resources and competence to implement sustainable actions from six groups, focus on such as “Create social harmony, Digital inclusion, Green ICT product and service, Green brand management and Energy conservation and carbon reduction.”



Chunghwa Telecom’s CSR Vision



1. Facilitate positive business evolution through action, broadband, value-adding and ICT integration service.
2. Develop emerging service opportunities such as Cloud and IoT (Internet of things), work with partners to generate best strategies.
3. Continue to strengthen the applications of Internet facility and information technology to support business transformation and growth.
4. Strengthen resource utilization and management mechanism to improve the efficiency of resources.
5. Develop overseas ICT market to explore new opportunities.
6. Sharpen the unique advantage of the subsidiaries to enhance the Company’s competitiveness.
7. Infuse telecom expertise into corporate social responsibility issues to implement the commitment of corporate citizenship.

SMART-I Management Mechanism

The distinctive Strategy-Management-Action-Response-Target (SMART) CSR management mechanism of Chunghwa Telecom shows its response to GRI G4 version in the systematization in management and the compilation and disclosure of facts in corporate social responsibility. New Indicators were introduced to the 2014 version, which substantively presented in the chapters and sections corresponding to relevant GRI index. It shows our commitment to international standards.

	Strategy	Development Strategy and Commitment
	Management	Management Mindset/Mechanism
	Action	Important Project/Action
	Response	Stakeholder Request/Response
	Target	Future Outlook/Target/Plan
	Indicator	The GRI and Chunghwa Telecom's own Indicators

World's Top 9 and Taiwan's Only Carrier to be Selected for Two DJSI Indices

In 2016, Chunghwa Telecom once again became the only Taiwanese telecommunication carrier to be selected as a composition of both DJSI (Dow Jones Sustainability Index) - World and DJSI - Emerging Markets. It ranked among Telecom Italia and SK (South Korea) as world's 9 most sustainable carriers.

Out of the 22 measurement criteria, Chunghwa Telecom achieved PR value above 90 in 7 measures including: "Customer Relationship Management," "Innovation Management," "Environmental Reporting," and "Digital Inclusion;" it had even scored PR value of 100 for "Innovation Management" and "Environmental Reporting." Being chosen as the composition of DJSI for the fourth time shows that Chunghwa Telecom has been recognized by international investors for its long-time persistence in sustainability and social responsibility, to the extent that makes it a model corporate entity.



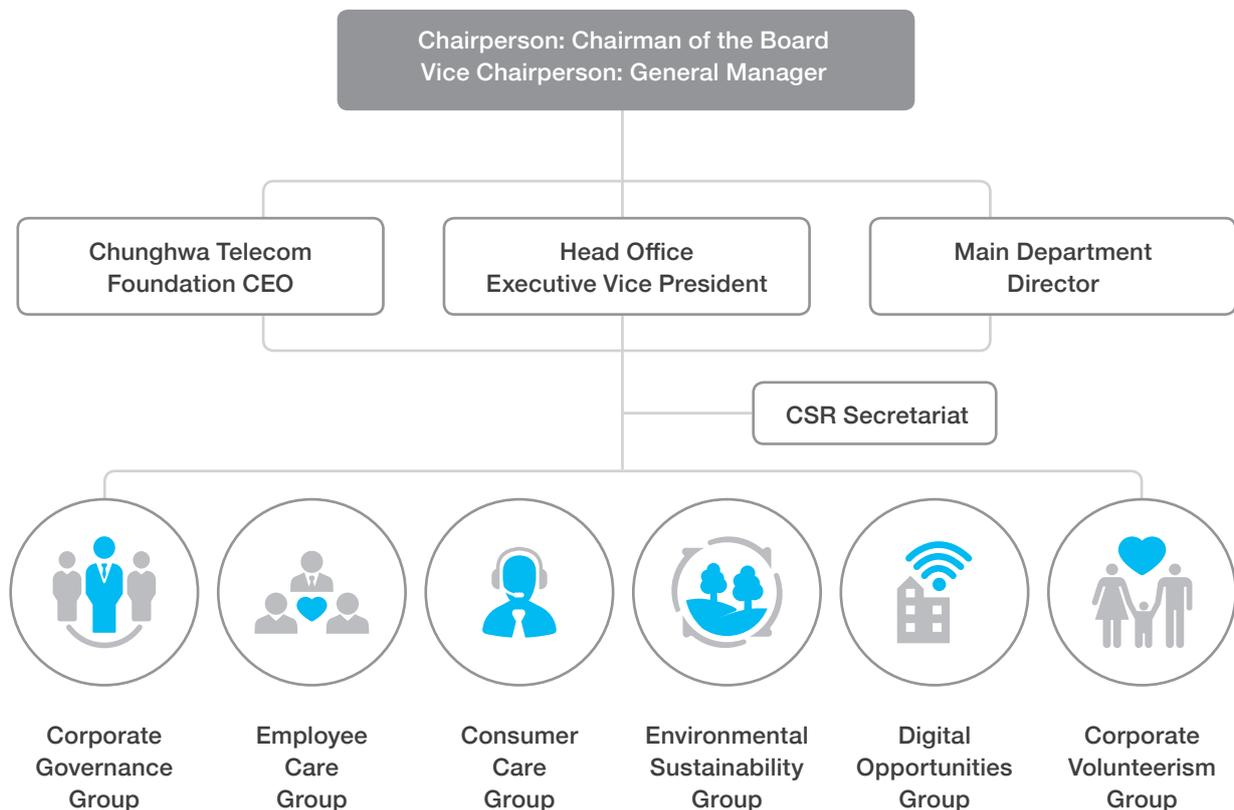


CSR Committee Management Mechanism

The “Chunghwa Telecom CSR Committee” was established for expanding our core functions of sustainable benefits and implementing CSR vision as a starting point to promote the sustainable development of the industry and society.

Representative	Yu Cheng, Chairman of the Board of Directors Chi-Mau Sheih, General Manager
Mechanism	Policies are approved by the Board of Directors; CSR Committee is responsible for coordinating and supervising the progress, and periodic reports of the relevant issues and the results of communicating to stakeholders to the Board; the Board is in charge of the annual final performance assessment.
Execution	<ul style="list-style-type: none"> • CSR Secretariat is responsible for planning and actions. • Public Affair is in charge of budgeting, educational training, and management of follow-ups and awards measures. • Branches and affiliates are responsible for promotion and implementation of the related projects.
Meeting Frequency	Quarterly
Report Approval	Reports are submitted to the president for final approval after the managements’ (Vice Presidents) review.

CSR Committee Organizational Chart



Internalization of Corporate Social Responsibility

To ensure that all employees understand the spirit of CSR, we have established a diversity of channels for communications and education of related topics. The initiative integrated with a performance evaluation that helps to translate the concept of CSR into actions and is practiced in routine operation.

Channel	Item	Content
Communication Within Senior Management	Senior Management Meeting	Key CSR issues will be discussed in the senior management meeting annually.
Employee Forum	Chunghwa Telecom Online Forum	We have an intra-site for employees to share opinions and give suggestions to the company.
Training	Environmental Training	We provide at least 4 hours training annually and ecological tours with the educational knowledge to pass on the spirit of environmental sustainability.
	CSR Training	Every year we will provide basic CSR training around departments, and invite consultants for further courses.
	New Employee Training	<ul style="list-style-type: none"> We have 3 days pre-service training, including personnel system, working guidelines, labor relation, etc. We send out employees to attend specific training courses regarding labor rights.
	e-Learning	We upload relevant courses and information on our e-Learning system to let employees learn and download freely.
Performance Assessment	Administration Management Assessment	We set energy reduction targets and link the result with employees' performance bonuses.
	Online Test on CoC	All our employees are required to take the "Chunghwa Telecom Code of Business Conduct and CoC Test" each year
	Reporting Mechanism	Once an employee is found to violate corporate regulations, it will affect his/her performance bonuses.
Others	CSR Report Workshop	Internal training on the new trend of preparing reports from time to time.
	Dedicated CSR Multimedia Webpage	To coordinate with modern stakeholders' communication pattern, we set a dedicated CSR multimedia web page to be one of our communication ways with our stakeholders.



Proper Control of Operational Risks 102-11,102-15

Chunghwa Telecom places great emphasis on business risk management as a means of ensuring stability against impacts from the external environment and internal operations. It has the “Risk Management Policy” in place to guide employees’ actions. The board of directors outlines the Company’s risk management policies, framework, and culture. The secretariat assists the board in the implementation of risk management practices throughout the Company.

The Audit Division audits risk practices and reports findings back to the board. In 2016, the Company established its Risk Management Committee consisting of the President as the convener and senior managers as members of the committee. The committee supervises risk management throughout the organization and is responsible for prioritizing the identified risks, formulating response strategies to key risk issues, and reporting to the board of directors at times deemed necessary.

Chunghwa Telecom’s risk management practices involve ongoing analysis of operational goals, the accuracy of financial reports, and impacts of high-risk events. These findings are constantly reviewed to ensure that all business risks can be identified and controlled, and thereby maintain business operations while protecting stakeholders’ interests. We also have an enterprise risk management (ERM) system in place to control risks associated with our businesses. Risk managers have been assigned to all departments to monitor risk targets and risk events, and report findings on a monthly basis. Risk managers are also involved in the review and adjustment of risk measures, assessment of risk impacts, and execution of systematic records, management, and follow-up trackings.

We use a “risk map” for assessing regulatory risks, network maintenance risks, market competition risks, and financial risks. For every major concern identified in our operations, we conduct intensive sensitivity analysis and stress-testing to decide whether we should take steps to accept, transfer, mitigate or avoid the associated risks, thereby minimize our possible losses. Risk management expenditures are expected to be disclosed in 2017.

* More Operation Risk information: <https://goo.gl/v2iGs6> (p.5-17)

The Scope of Chunghwa Telecom Risk Management Regulations



Intensive Competition of the 4G Market

The introduction of 4G technology has enabled carriers to exceed existing bandwidth and speed limitations and deliver faster Internet services. In turn, it gave rise to broader applications and presented both risks and opportunities to Chunghwa Telecom. In 2016, Chunghwa Telecom opened up the 2600MHz band ahead of its peers, and dominated the industry with a maximum bandwidth of 130MHz. By utilizing “tri-band carrier aggregation” technology, the Company managed to increase 4G speed beyond 300Mbps and once again led Taiwan’s mobile communication industry into a new era of high-speed 4G service.

Chunghwa Telecom had accumulated 6.71 million 4G customers by the end of 2016. In an attempt to keep up with the rapidly changing and increasingly competitive environment, the Company has committed significant resources to innovative research and development (totaling NT\$ 3.8 billion in 2016; representing 1.6% of overall revenues) to improve customers’ mobile broadband experience and digital lifestyle and continuously exploit bandwidths of the 4G technology.

Risks

Five carriers offer 4G services in Taiwan, making it a highly competitive business. Competition in 4G mobile will only intensify and pose a threat to Chunghwa Telecom’s operations in the future.

Opportunities

Smart city and Internet of things (e.g., Internet of vehicles, remote education, hospital monitoring, smart home, smart energy, etc.) are two prominent trends. Combined with big data applications, they open up new products and services for Chunghwa Telecom.

Target

Introduce 4G/Wi-Fi service to Taoyuan Metro and Taiwan High Speed Rail, increasing customer base to 8.71 million; explore innovative and value-adding applications to enhance mobile Internet usage.

Involvement in Next-generation Telecom Technology

In attempting to gain an early insight into next-generation telecommunication technologies, Chunghwa Telecom has not only committed significant resources to R&D and actively involved itself in setting the new standards (under 3GPP), but also explored means to strengthen connections with local and foreign industry participants. In 2015, Chunghwa Telecom joined Taiwan Association of Information and Communication Standards (TAICS) and Next Generation Mobile Networks Alliance (NGMN); both of which are significant to the development of 5G technology.

Chunghwa Telecom is the only Taiwanese carrier to join NGMN, which now has 28 members from around the world. Chunghwa Telecom has one representative on the NGMN board to bridge Taiwan's 5G development with the world.

In 2016:

- February - Chunghwa Telecom participated in the Mobile World Congress (MWC) organized by NGMN in Spain to discuss work plans and short-term goals of NGMN. This involvement raises the influence and visibility of Taiwan's telecommunication carriers globally.
- March - Chunghwa Telecom hosted NGMN's first member conference in Taiwan to help connect Taiwan's telecommunication industry with the world.
- October - Joined TAICS and MediaTek in hosting a 5G Technology Workshop that helped Taiwanese industries connect with the rest of the world and made early investments to 5G technology.

In early 2017, Chunghwa Telecom led industry participants and equipment suppliers to completing a Pre-5G NB-IoT test in collaboration with Nokia. By expanding the mobile network to connect all things in life, the Company helped create a broader diversity of applications and services. Chunghwa Telecom signed a Memorandum of Understanding for collaboration on SDN/NFV With NTT Japan and the headquarters of ITOCHU. All parties will be collectively engaged in the development of the common specifications for the next-generation network.

Note: 1. The International Telecommunication Union (ITU) named the next-generation mobile communication (5G) standards as IMT-2020 in 2015, and has envisioned its potential to realize Internet of Things.

2. Next Generation Mobile Networks Alliance(NGMN): <https://www.ngmn.org/>

3. Taiwan Association of Information and Communication Standards: <http://www.taics.org.tw/>



Pay Attention to Digital Convergence Development

Chunghwa Telecom maintains constant communication with government agencies and authorities to keep informed of the possible changes in important policies and regulations. The one amongst all that concerns the competitiveness of the ICT industry the most would be the "Digital Convergence Plan."

The National Communications Commission (NCC) announced its new policy guidelines in August 2016 that includes an adjustment and re-drafting of the existing regulatory framework for digital convergence. In January 2017, the NCC announced the draft "Telecommunications Management Act" and the draft "Digital Communication Act" and solicited comments from the public. Once the administrative procedures have been completed, these two drafts will be submitted to the Executive Yuan for review and consideration. Chunghwa Telecom will keep monitoring the situation of regulatory amendments and express our opinions where appropriate.



Risks and Opportunities for Climate Change

The climate change issues and a company's long-term business positioning is closely related. To reduce climate-related cost and risk in the value chain and evaluate the result of voluntary carbon reduction measures, Chunghwa Telecom initiated "Greenhouse Gas Inventory" in 2008.

Chunghwa Telecom's initial carbon management goals were to "reduce greenhouse gas emission to 2007 levels by 2012," which had been achieved ahead of schedule in 2011 due to proper control. Assuming an annual growth of 2% for 4G and mobile communication services, the Company will inevitably be required to install additional communication equipment, which consumes more power and emits more greenhouse gases. In view of this development, we have revised and set a new greenhouse gas target in 2013, which is to:

**Benchmarking 2012 GHG emission standard,
and control the annual growth of GHG emission to no more than 2%.**

The total greenhouse gas emission is 839,172.07 t-CO₂e in 2016, including CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. As an integrated telecom carrier, most energy source consumed by Chunghwa Telecom is electricity, which is classified as Scope 2 (purchased electricity) gas emission and accounted for 96.71% of total gas emission. Scope 1 gas emission is normally sourced from greenhouse gas emissions such as offices and accounted for 3.29% of total gas emissions.

Unit: t-CO ₂ e	2014	2015	2016
Direct GHG Emission (Scope 1)	24,036.0	26,994.3	27,345.62
Indirect GHG Emission (Scope 2)	815,138.8	807,750.98	811,826.45
Total GHG Emission (Scope 1+Scope 2)	839,174.8	834,745.37	839,172.07
Emission Intensity (t-CO ₂ e/NT\$ million)	3.7	3.6	3.7
Coverage of Revenue	100%	100%	100%

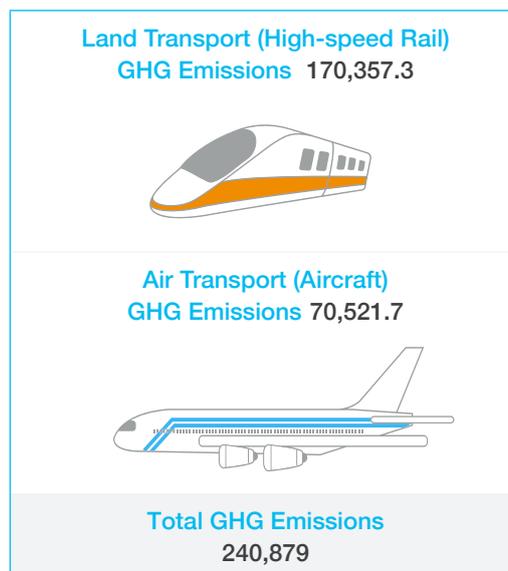
Note: GHG inventories and certification accord with ISO 14064-1 standard, and the value of Global warming potential is referred to IPCC Fourth Assessment Report (2007). All data are certified by SGS-Taiwan.



Green Transportation for Green Living

Chunghwa Telecom supports green transportation as part of green living. Given the issue's increasing popularity around the world, Chunghwa Telecom has also discussed carbon footprints associated with employees' business travels in 2013. Boundaries have been set at "Scope 3," as specified by World Business Council for Sustainable Development (WBCSD), while emission was calculated based on mileage.

The Company's Scope 3 emission in 2016 was 240,879.02 kg-CO_{2e}. Emission from employees' business travels was calculated based on the two main forms of transportation: high-speed rail and airplane. On a long-term perspective, the Company is planning to include consumers' impacts into Scope 3 calculation so that the greenhouse gas inventory system may produce a more comprehensive picture.



Unit: kg-CO_{2e}



Action Program in Response to Climate Change

In order to manage risks caused by climate change, we completed the "Chunghwa Telecom Environmental Protection Energy Conservation & Carbon Reduction Strategic Action," and formulated priorities, improvement of disaster resilience; ensure clear communications and the safety of overall communications network.

Reinforcement of Flood Resistance Plan at the Data Centers

- Installation of water gate and flood prevention devices.
- Introduction of underwater pumps for rapid displacement of water trapped in the basement, and rise/shut the basement vent and doors and windows.
- Move or Increase the height of the outdoor ground equipment (radiators, air conditioning outdoor units, etc.) further up above ground level.
- Increase the height of ventilation opening of the underground oil tank and introduce the valve to the inlet of oil refuels to prevent flooding of the underground oil tank.
- Establish relevant prevention measures in vent lines, entry of underground tunnel, entry of high-tension cable, lanes, etc.

Improvement Plans for Telecom Equipment

- Move basement equipment: Move diesel generators and AC distribution equipment to the 1st floor and above and install DC equipment to higher than 2nd floor.
- Prepare mobile generators and pumps.
- Enhance generator and battery configurations in the remote equipment room and increase oil storage tank capacity.
- Amplify batter capacity: When natural disaster struck, and caused power outages, backup battery can be maintained up to 72 hours (3 hours in regular facilities) to support the remote areas, when necessary, SMR capacity can be enlarged.



Go All Out - Typhoon Disasters

Typhoon disasters repeatedly ravaged Taiwan in 2016. Typhoon Nepartak, Meranti, and Megi were the most severe, all achieving wind force of 17 on the Beaufort scale that caused massive damage. Chunghwa Telecom's networks have been planned, designed and constructed after fully taking into account disaster prevention and backup capacity, in order to prevent disaster areas from being isolated from the outside world. Although the series of Typhoon disasters caused severe damage to base stations throughout the nation, no remote town or village was rendered completely isolated due to loss of mobile communication.

Due to previous experiences with emergency repairs during the arrival of Typhoon Soudelor in 2015, Chunghwa Telecom had put many efforts into preparation for Typhoon. By adding protections to key communication facilities, and supplying service stations in disaster-prone areas with backup power, tools, fuel, cables, and satellite phones, the Company may minimize its damage and deploy tools properly to shorten the time of repair. In addition to monitoring Typhoon news, we prioritized our technicians to service critical networks and base stations in the event of a disaster. Engineers were called to different areas to support the repair, and a total of 15,642 people were mobilized throughout the typhoon disasters to ensure restoration of basic communication within the shortest time.



Highest Moral Standard ^{102-16,102-17}

To establish a corporate culture of ethical management, we have set up the “Code of Ethics of Chunghwa Telecom Co., Ltd.,” “Ethical Corporate Management Best Practice Principle,” and “Procedures for Ethical Management and Guidelines for Conduct.” These are formulated as the basic guidelines for employees’ ethical standard while engaging commercial activities to have all employees perform business activities at the highest moral standard.

In addition to adding the training program of new hires, all employees are required to log in to the web to review and take the test every year. We also have a reporting hotline to encourage employees to voice their opinions safely and confidentially. Other than those who were not available during the testing period, all other employees have participated in the test in 2016.



Corruption Prevention

Chunghwa Telecom has the “Employee Appraisal Guidelines” and the “Employee Reward/Disciplinary Standards” in place to evaluate employees’ performance. Rewards and disciplines are issued according to these rules whenever employees exhibit conducts that deserve them.

Information such as grievance hotline has been made available at Chunghwa Telecom’s intranet/employee portal. The Company accepted and closed 42 cases of complaint in 2016; 7 were associated with violation of the code of conduct (no corruption events). All complaints were investigated and handled according to Chunghwa Telecom’s internal policies and principles, and taught as case studies to strengthen employees’ esteem towards rules, discipline, corporate image, and shareholders’ interests.

* Internal Policies of Chunghwa Telecom: <http://www.cht.com.tw/en/aboutus/companyrules.html>

Internal Audit System

We have an internal audit unit that reports directly to the board of directors. The audit unit conducts internal audits strictly following policies in the utmost objectivity. It assists the board of directors and managers by regularly reviewing the effectiveness of internal control systems and operating efficiency.

* Organization and functioning of Chunghwa Telecom’s internal audit unit: <https://goo.gl/nUFF2y>

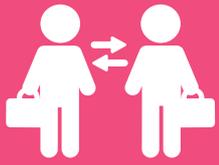
Transparent Disclosure

Chunghwa Telecom adopts a corporate governance practice that emphasizes on integrity, accountability, and trustworthiness. We are committed to reducing information asymmetry between the management and external stakeholders, and utilize a variety of means such as the corporate website, Market Observation Post System, Annual Reports, CSR Reports, press conferences and investor conferences to facilitate transparent communication with stakeholders. Furthermore, measures have been taken to ensure the timeliness, quality, balance, and credibility of information disclosed.

Since information disclosure assessment was launched by Securities & Futures Institute in 2004, Chunghwa Telecom has been rated A++ and ranked among the top 10 in every year. Also in 2015 and 2016, the Company ranked among the top 5% in TWSE’s corporate governance evaluation. These two achievements are a testament to the efforts we have devoted in information disclosure.

Strengthen Business Management

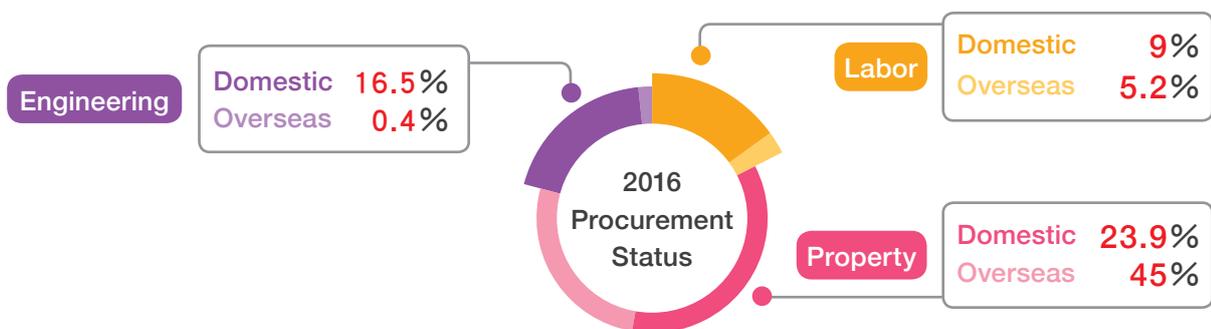
To improve the quality of business marketing and consumers’ trust, we have formulated the “Business Marketing Standards” to ensure the execution of business aligns with the requirements of the competent authority, while including compliance status into the evaluation of higher management’s performance. Chunghwa Telecom received no penalty from the Fair-Trade Commission in 2016.



Supply Chain Management



Chunghwa Telecom's suppliers can be divided into 3 categories: property, labor and engineering. We make enormous purchases from an extensive number of suppliers, from networking equipment, data equipment, cables, marketing design, to waste disposal services.



Note: Overseas suppliers include foreign corporations, branch offices in Taiwan and agents.



Our enormous purchase volume entitles us to profound influences over our suppliers. Chunghwa Telecom utilizes four approaches, namely: contractual terms, questionnaire surveys, Supplier CSR Conferences and on-site audits, to raise suppliers' awareness and understanding towards CSR, which enables them to appreciate our commitments and efforts regarding our supply chain management. We promote corporate social responsibilities on two levels: 1. For suppliers that just started to learn about corporate social responsibilities, we encourage, educate and support them in developing the proper awareness; 2. For suppliers that have already developed full knowledge of CSR, we conduct third-party audits, online CSR questionnaires, conferences, and sustainability campaigns as the means to engage them in a win-win relationship.

2016 Critical Suppliers

Category	Type	Number of Suppliers
Labor	Tier1	8
	Non-tier1	0
Property	Tier1	28
	Non-tier1	0
Engineering	Tier1	1
	Non-tier1	0

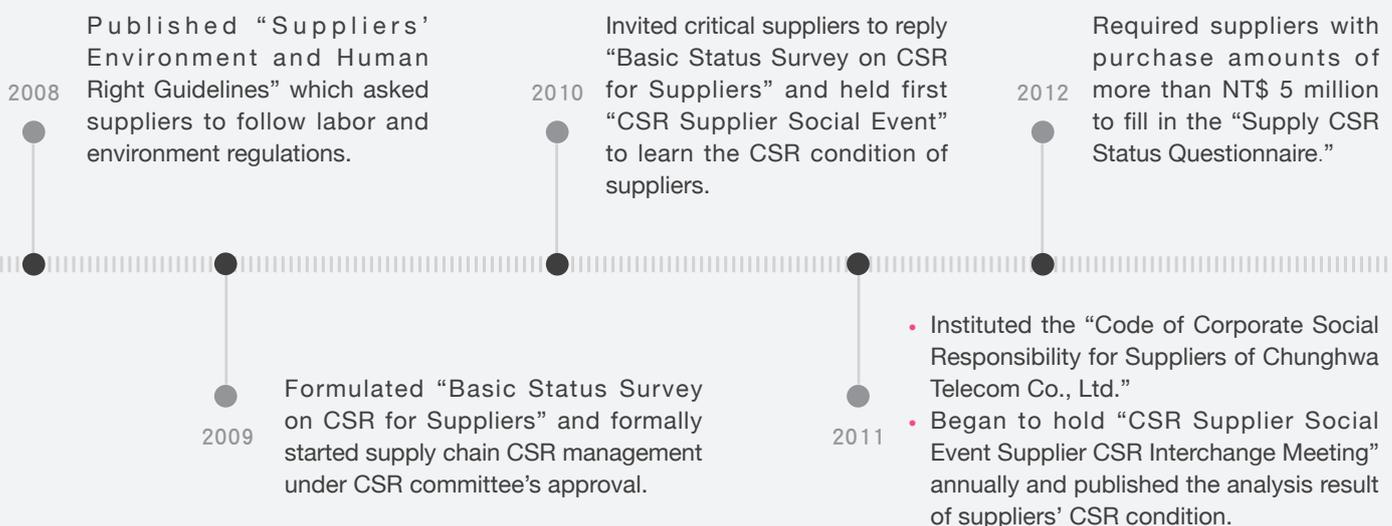
Note:

- After removing duplicate contractors, the Company has 34 critical suppliers in total.
- Definition of Tier 1 suppliers: Suppliers that provide products or services directly to Chunghwa Telecom for an amount of NT\$ 50 million or above; definition of Non-tier 1 suppliers: critical suppliers that do not meet Tier 1 conditions.

The CSR Management Overview

Item	Explanation	2016 Target	2016 Result	2017 Target
Online Supplier CSR Status Questionnaire (%)	Require suppliers with purchase amounts of more than NT\$ 5 million to fill in the "Supplier CSR Status Questionnaire," items include: • Ethics • Labor • Environment • Health & Safety	86%	87%	88%
CHT's procurement staff subjected to CSR-related trainings (%)	Actions have been taken to ensure that all procurement personnel understand and comply strictly with "Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd."	100%	100%	100%
CHT suppliers bound by contracts with CSR-related terms (%)	All procurement contracts specifically require suppliers to comply with "Code of Corporate Social Responsibility for Suppliers of Chunghwa Telecom Co., Ltd."	100%	100%	100%
Suppliers without violations against environmental protection laws (%)	Learn about suppliers' environmental management practices through online questionnaires.	90%	96%	96%
Supplier CSR Audits	Since 2014, the Company has set its goals to complete 10 suppliers audits every year, and expects to complete audits for the top 100 suppliers by 2023, thereby ensuring that none of its critical suppliers are prone to environmental, forced labor or human rights risks. • The audit covers the Company's Code of Conduct • Training material and record for CoC and ESH policy • Policy to protect privacy of suppliers, customers, consumers and employees • Child labor prohibition policy • Safety officer certification • Policies, processes, and requirements of environment protection, pollution prevention/source reduction	100%	100%	100%
Audits on civil engineering/cable contractors	100 audits were conducted on 58 contractors. At the end of 2016, 38 suppliers were found to have committed violations and had a total of 1 violation point on record. They were fined for a sum of NT\$ 1,038 thousand.			
Safety and health on-site inspections	Northern Taiwan Business Group, Southern Taiwan Business Group and Mobile Business Group all have health and safety officers assigned to inspect suppliers on-site at least 3 times a week. Any defects discovered were notified to the relevant departments and followed up for improvements. A total of 7,210 inspections were conducted on 458 suppliers in 2016.			

Supply Chain CSR Management



Mutual Benefits with Business Partners

We published the “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 extends to other participants of the supply chain that the supplier is directly or indirectly related to. We hope that suppliers may commit to our values and take more proactive steps toward maintaining a sustainable business relationship.

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

* Online supplier management platform: <https://scm.cht.com.tw/outboard/>

<p>Rewarding top-performing suppliers</p>	<p>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, and reduction of performance bond to 5% the value of contract won.” This was one of the Company’s attempts to exert our influence as an industry leader and bring more attention to corporate social responsibilities.</p>
<p>Training of professional skills</p>	<p>Our Telecommunication 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 2016, the institute organized 29 classes and trained 505 workers; 294 of whom had obtained certification.</p>



2013

- Became the first telecom service provider to implement the “Supply Chain CSR Audit and Assistance.”
- Stipulated the “Chunghwa Telecom’s Operating Guidelines for Qualifying Material Suppliers” to manage the implementation of suppliers’ ethical business practice.

2014

Commissioned SGS, a third-party inspection institution, to launch the “Suppliers CSR second-party audit” on 10 critical suppliers.

2015

- Continually engaged in SGS Taiwan, a third-party inspection institution, to conduct the “Supplier CSR Audits” on critical suppliers.
- Established the “Chunghwa Telecom Co., Ltd. Procurement Grievance Procedures” to give suppliers the means to raise complaints regarding Chunghwa Telecom’s purchasing activities, and hence created an open, transparent purchasing environment.

» 2016

- Continuously implemented the “Supplier CSR Audits” for critical suppliers.
- Organized the first “Sustainable Environmental Visit.”

2016 Chunghwa Telecom Supplier CSR Interchange Meeting

The 2016 “Chunghwa Telecom Supplier CSR Interchange Meeting” was hosted by Executive Vice President Li-Hsiu Wu, during which representatives from 3 companies were invited to share their experience, and a total of 89 corporate representatives had participated.

The conference invited Dr. Ching-Ching Liu from Sustainability Office of Acer Inc., a member of DJSI - Emerging Markets, to share with participants on Acer’s supplier management system. Six “Outstanding Suppliers of the Year” were commended during the conference. The manager Ching-Lan Li from Pacific Electric Wire and Cable Co., Ltd. and the Executive Vice President Bin Lin from Sercomm Corporation both supported the purpose of this conference and acknowledged the need for businesses to unite and act together.

Chunghwa Telecom has envisioned itself as a sustainable “Green Enterprise,” and hopes to promote sustainable business through encouragement and sharing. At the end of the conference, Vice President Ming-Fang Li explained to participants about Chunghwa Telecom’s new green label system to be introduced in the coming year. Through the implementation of environmental management, Chunghwa Telecom hope to exert real influence on green procurement, water usage, and energy efficiency and lead suppliers toward embracing a sustainable future.



Video of the event



2016 Sustainable Environmental Visit

In 2016, Chunghwa Telecom organized its first Sustainable Environmental Visit, during which a group of 49 representatives from 31 businesses were led by Vice President Ming-Fang Li of the Supply Department to a visit at Taipei Muzha Refuse Incinerator Plant. Courses were designed and arranged to raise awareness of sustainability towards the environment.

Main themes for 2016:

Experience-oriented environmental education and visit

Through an actual visit, we hoped to direct suppliers' attention to environmental issues and establish accountability from the source and among manufacturers. In doing so, we invited suppliers to realize our green product vision.

Invitation to an ecological tour

The ecological tour is a responsible way to travel. By changing people's lifestyles and travel behaviors, we aimed to reduce impacts of human activities to the environment.

Professional corporate social responsibility courses

According to suppliers' feedback, most suppliers desired a "better understanding of corporate social responsibility management system." Through courses and exchange of experiences, we engaged suppliers in a series of discussions about corporate social responsibility management and helped each other moving forward.



Video of the event





Lead the Development of a Smart City



● Sustainable Products and Services

Changes in the global environment and climate have given rise to the idea of low-carbon economy and green consumption. Sustainable products and services will gradually become the mainstream in consumers' purchases, which we believe will be made possible once the smart city and related applications become available.

Chunghwa Telecom remains devoted in green innovation, and strives to accomplish our goals through green consumption, green service, and green activities. We hope to apply our advantages in environmental protection and energy conservation onto existing products and services, as we view business and environmental sustainability our competitive focuses and opportunities. In 2016, there were NT\$ 6.36 billion revenues from green products, which accounted for 2.8% of total revenues.



S trategy

Continue to invest in R&D, and master the key technologies in the field of IoT trends, operational management and business innovation by introducing advanced technologies and the joint ventures with the government and academic circle

M anagement

Established the quality improvement task force, quality assurance center, and business process task force for introducing ISO R&D quality system for integration with the development of competence, project management and system operation

A ction

Continue to present innovative products and create smart cities, including Smart Home, iEN, ITS

R esponse

Please refer to p.55 “The Present Situation and Prospects of Innovative Technology”

T arget

Short-term: Continue to pool momentum for research and development and launch new products and services

Long-term: A 5-year IoT plan has been devised for 2017-2021. The plan involves the construction and enhancement of IoT platform to provide services such as cloud storage and AI for various industries

I ndicator

CHT NT\$ **3.8** billion in R&D investment

CHT **1,488** talents in R&D

CHT **1,649** patents

Participation in the “Taiwan Intelligent Aerotropolis Association”

To assist in the government’s “Taoyuan Aerotropolis Project,” Chunghwa Telecom took the initiative to call local and foreign industry leaders of the same ecosystem into meetings, and was able to reach a consensus in just 2 months’ time while recruiting nearly 70 businesses to form the Taiwan Intelligent Aerotropolis Association (TIAA). Having envisioned “Forge a city of smart logistics and of industrial advance technologies,” the TIAA exists to offer insightful advice to the development of Taoyuan Aerotropolis.

In 2016, TIAA joined Taoyuan City Government in hosting the “Asia Silicon Valley x Intelligent Aerotropolis Forum,” which attracted more than 300 people to participate. TIAA had already completed the proposal of its “Regulatory Guidelines for Establishing Taiwan as Asia Silicon Valley” and made policy recommendation concerning the making of the Asia Silicon Valley. Representatives from National Development Council and Taoyuan City Government were invited to the forum for a briefing of TIAA’s recommendation, so that the industry participants, government officials and the academia could achieve a consensus regarding the Asia Silicon Valley.

*Taiwan Intelligent Aerotropolis Association: <http://www.tiaa.com.tw/>

4G Leads Smart Cities



In 2016, Chunghwa Telecom introduced the theme: “Smart Opportunities through Internet Integration” to demonstrate how IoT and ICT solutions can be used in conjunction with broadband technology to create a smart city. CHT’s 4G Smart City has been supported by 15 counties and cities spreading across Keelung City, Taipei City, New Taipei City, Taoyuan City, Hsinchu County and City, Miaoli County, Taichung City, Chiayi County and City, Kaohsiung City, Taitung County, Yilan County, Penghu County, and Kinmen County, and also 2 specific areas, including Taiwan Taoyuan International Airport and Taoyuan Metro. The service will be expanded and promoted to wider areas in 2017, including Tainan City, highway service areas, and THSR Hsinchu Station.

4G Leads Smart Cities - Accessibility Applications

Chunghwa Telecom is currently a participant in the 4G mobile broadband network smart city subsidy program by the Industrial Development Bureau, MOEA; it has 3 main focuses for building a smart city and leading the new smart lifestyle, which are: convenience, LOHAS, and friendliness. The friendliness focus is mainly concerned with “accessibility applications.” It involves the use of 4G technology to create a living environment that is caring, friendly, and accessible to people with disabilities and the elders.

In 2016, the Company completed accessibility upgrades of 5 streets, 9 MRT stations, 1 campus, 1 shopping district, and 1 activity center. By the end of the year, the accessible facilities were used by more than 7,700 people. At the beginning of 2017, Chunghwa Telecom participated in Mobile World Congress (MWC) and shared its experience on accessible applications and services in the hope of promoting solutions to a greater number of countries to the benefit of people with disabilities around the world.



Lead the Development of a Smart City

Intelligent Energy Network Service (iEN)

There are 3 main aspects to Chunghwa Telecom's iEN service: green energy, green IT, and building energy efficiency. In addition to ensuring the soundness of equipment operations, iEN also delivers a total energy-saving solution for Chunghwa Telecom and corporate customers, which can be utilized to create the optimal energy management environment for benefits such as more efficient system operation and reduction of operating costs.

►Case #1: Building automation

A university contracted for a higher power capacity than it actually used, causing fixed power charges to be set above the actual requirement. In the peak season, however, the university uses power above the contracted volume and is fined for the excess.

iEN solutions

- By collecting power usage information throughout the campus, the Company was able to recommend the optimal contract capacity and save the institution from overpayment.
- Power usage is being monitored and controlled for the entire campus, so that usage during peak seasons can be kept within the limit to avoid fines.

►Case #2: LED road lamp management system

Road lamp management solution

- Features remote monitoring and digital map for a real-time update on road lamp conditions.
- Features luminance control for better energy-saving and cost-saving benefits.
- Features equipment maintenance analysis, thereby enables preparation of spare parts and budgeting of related expenses.

Sustainability in Innovative R&D

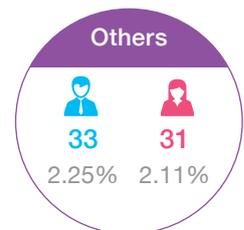
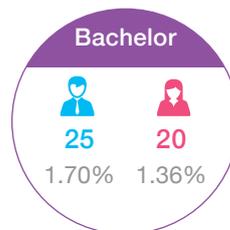
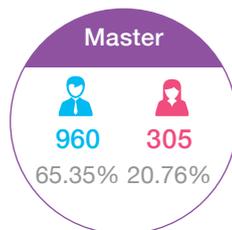
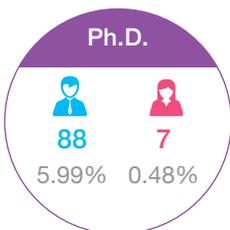
As the leader in telecommunication, we understand that research, development, and innovation are what drive the growth of the business. To maintain our current advantage, we have adopted a visionary and creative culture that focuses on interacting, sharing, and creating mutual benefits with industry participants.

Chunghwa Telecom Laboratories (CHT-TL) is a dedicated research institution commits substantial resources to research and development work. In addition to developing technologies needed by the Company, CHT-TL also plays a major role in the nurturing of new businesses. CHT-TL focuses its research efforts on innovative services, core technologies, and visionary applications and strives to explore convenient and useful services from consumers' perspective, and formulate solutions through intricate coordination. The ultimate purpose is to find ways to "simplify tasks for consumers and let Chunghwa Telecom deal with complexities."

Wireless Communications Lab	Big Data Lab	Broadband Networks Lab	Convergence Services Lab	Information & Communication Security Lab	Business Management Information Lab	Internet of Things Lab	Billing Information Lab	Cloud Computing Lab	Network Management Lab	Business Solution Lab
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Quick View of Chunghwa Telecom Laboratories

- More than 1,469 employees (nearly 6.48% of total employees in CHT), 95% are R&D personnel. The laboratories plan to hire 30 additional permanent staff in 2017.
- R&D expenses totaling NT\$ 3.8 billion were spent in 2016, total levers for 1.6% of consolidated operating revenues.
- In 2016, the laboratories obtained 225 new product/technical patents (212 were registered domestically, and 13 were registered overseas) to a total of 1,649 (1,506 were registered domestically, and 143 were registered overseas). 989 of the patents are currently in force (916 registered domestically and 73 registered overseas).



Awarding Bodies	Award Description
Taiwan Area National Freeway Bureau, MOTC	Big Data Lab Won 2nd place in the competition - "Creative Application of Highway ETC Data for Traffic Management"
Chinese Enterprise Resource Planning Society	Internet of Things and Broadband Networks Lab Co-winner of "2016 International Conference on the Development and Application of Big Data and Enterprise Resource Management - Thesis Award"
Microsoft	Big Data Lab Won Gold Award and Versatile Application Award in the "Open Cloud Data Service and Taipei OMG (Open, Mobility, Green) Traffic Application Development Competition"
Taiwan Association of Cloud Computing	Cloud Computing Lab Won "2016 Cloud Computing and Big Data Analysis Conference - Best Thesis Award"
Ministry of Economic Affairs	Won 1 platinum, 2 gold, 4 silver and 1 bronze in "2016 Taipei International Invention Show & Technomart"
Intelligent Transportation Society of Taiwan	Cloud Computing Lab Won "2016 Smart Transportation Thesis Award Cloud Computing and Big Data Analysis Conference - Best Thesis Award"

Encourage Internal Innovation

We encourage employees to innovate and break through existing boundaries as part of our creative culture. We hosted 2 incentive competitions in 2016, including a Creativity Competition and an Innovation Competition.

The “Creativity Competition” inspires employees to think creatively in ways that expand business opportunities for Chunghwa Telecom. Employees are encouraged to solve problems from customers’ perspective and address various aspects of concern in order to develop feasible solutions. The Creativity Competition received entries from 54 teams. The “Innovation Competition,” on the other hand, encourages innovative research and development as well as out-of-the-box thinking for value-adding improvements to existing products and service procedures. The Innovation Competition received entries from 24 teams.



Lead the Development of a Smart City

The Present Situation and Prospects of Innovative Technology

	2016 in Review	2017 in Prospects
SDN Technology and Applications	Chunghwa Telecom deployed a SDN network with domestic networking vendors including Estinet, Agema Systems, Xinguard, Realtek semi-conductors, III (Institute for Information Industry), and ITRI (Industrial Technology Research Institute) at Exhibition Hall 3 of Taipei World Trade Center, which fully realize fast deployment and agile adjustment.	Build a software-based service-driven ICT network for shortened launch time and to provide one-stop service package and fast delivery. Strengthen consumers’ support to the brand by satisfying their diverse needs.
Defense Solution Against APT	EyeQuila’s solutions are capable of gathering and analyzing information immediately on suspicious websites that it identified, and thereby assist enterprises with information protection and reduce security risks. EyeQuila’s big data APT solution was presented during the 2016 “Taipei International Invention Show & Technomart” and won the Silver Award.	Continually refine enterprise information security technology and assist companies with information protection, and reduce internal security risks; enhance appeals of EyeQuila products and support the business department in generating revenues.
Smart Environment Solutions	Completed functional modules including effluent monitoring, DMA section measurement, etc. for real-time monitoring of water pollution and discharge. Any abnormal discharge can be alerted and reported to facilitate emergency response and improvement, which contributes favorably to environmental protection.	Support the government’s solar energy initiatives by developing solar power equipment management systems. These systems gather information on power stations in real time, and send the alert when power efficiency falls below a certain level so that improvement measures can be taken in advance.
B4G/5G Technology	Chunghwa Telecom hosted NGMN’s first member conference in Taiwan. Through interactions with world-renowned carriers, we helped connect Taiwan’s telecommunication industry with the rest of the world. At 3GPP, the Company successfully standardized specifications for dual-band, tri-band and quad-band carrier aggregation based on the release of 4G bands in Taiwan, and contributed to the competitiveness of Taiwan’s mobile network. At NGMN, Chunghwa Telecom explained the legal implications and practical applications of 5G spectrum in Taiwan so that the 5G Spectrum was published after taking into account all legal and practical concerns in Taiwan.	The Company has devoted itself to the development of mobile IoT communication technology, and invested into the research of Cat.M and NB-IoT technologies based on the existing 4G LTE infrastructure. In addition to engaging 3GPP, NGMN and other organizations relevant to the creation of 5G standards in technical discussions, Chunghwa Telecom will also construct an end-to-end experimental NB-IoT network that can be implemented at an appropriate time to begin mobile IoT service within the nation. We realize the government’s vision to “drive economic growth through innovation, and promote industry transformation through IoT.”

Pre-5G NB-IoT Testing

Driven by a dedication to innovative research and service, Chunghwa Telecom joined Nokia and led the nation in the testing of NB-IoT (Narrow Band Internet of Things) over Chunghwa Telecom's 4.5G network. In doing so, the Company contributes to the development and popularity of IoT applications in Taiwan.

We have collaborated with Nokia to install smart outdoor sensors with built-in NB-IoT modules at farmhouses located in Taoyuan City. The sensor gathers environmental data such as atmospheric pressure, humidity, temperature, etc. and transmits them to data users far away for real-time monitoring and analysis. The project helps detect frost damage on crops and enables analysis of climate impacts on crop growth. Other possible applications include air quality monitoring, water quality monitoring, and pet tracking.

The difference between 5G and 4G lies in the connection between objects. NB-IoT is the current IoT technology used in the Pre-5G stage; it has many advantages such as wide coverage, low power consumption, low cost, large-scale connection support, stability, reliability and security that make it suitable for IoT applications including smart meter, smart road lamp, and smart parking. It has been regarded as the leading technology for 5G IoT applications, and is believed to have the potential for vertical applications.



National Time and Frequency Standards - Leap Second Service

Chunghwa Telecom has been commissioned by the Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs, to maintain time and frequency to the highest standard. It compares data with the rest of the world to ensure consistency with global standards. Chunghwa Telecom is a participant of International Bureau of Weights and Measures (BIPM), and joins other participants in maintaining Coordinated Universal Time (UTC) and International Atomic Time (TAI). Domestically, Chunghwa Telecom serves as the common source for all time-frequency analyses and calibrations performed by local businesses; it distributes national standard time via telecommunication technology to satisfy the public's need for standard time.

The “Cloud Valley” Project

Chunghwa Telecom has been working closely with Cloud Computing Association in Taiwan for a project named “Cloud Valley” since 2013. With the support of technologies, guidance and fundings from the association’s prominent members, Cloud Valley has been vested the hope of discovering future talents/entrepreneurs in Taiwan’s cloud computing industry, and becoming the model industry cluster. In 2016, Division Chief Jao of Chunghwa Telecom’s Data Communications Business Group was assigned to counsel 2 new businesses for the finalist competition in Cloud Valley, which they both delivered extraordinary performance.

*Cloud Computing & IoT Association: <http://accelerator.twcloud.org.tw/>



Innovative Application Challenge - Nurturing Creative Minds

Chunghwa Telecom’s innovative application challenge has been running for nearly 10 years. We provide an open platform and invite passionate students and working adults to turn creative ideas into useful apps, microfilms and children’s e-books. Through this competition, we have established communication between creators and business users, and gave them the opportunity to observe, learn and inspire one another and take creativity to a whole new level.



1.Hami Apps Development Challenge

More than 10,000 students have participated, and more than 1,000 mobile applications have been completed since the challenge first began. In 2016, a total of 153 applications were submitted and listed, accumulating 2 million downloads in total. Overall, the submissions exhibited significantly higher quality and commercial value than before.

2.MOD Micro Film Competition

Amongst all microfilm competitions in Taiwan, MOD receives the highest number of entries and offers the largest rewards. After collaborating with Taipei Film Commission and Micro Movie Association in 2015, Chunghwa Telecom invited ELTA Technology to be a co-organizer in 2016, and offered an exclusive script award plus subsidies to assist in the filming of winning scripts.

3.FunPark – Creative Storytelling

“FunPark” is the nation’s first digital creative platform for children’s publications. It is where students are inspired to create stories, and the winning pieces are published into personalized interactive digital illustration apps with the help of a professional editing team.

A total of 134 schools participated in the program in 2016, and nearly 60 campus tours were organized to reach more than 1,500,000 students, teachers and parents. The winning pieces were viewed more than 525,000 times. The 4th year of competition had a stronger lineup of winners, adding to a total of 53 publications on “FunPark.”



Marketing Services



● Brand Management

Chunghwa Telecom has long been maintaining a brand image of stability, innovation, and consumer-centric values by packaging our professional, convenient, and diverse ICT services with marketing creativity. In a crowded and competitive industry, Chunghwa Telecom managed to stand out among others and win consumers' preference and market share by maintaining our stature as the "industry leader" and devotee of the best digital lifestyle.

Chunghwa Telecom adopts a centralized brand management approach that caters for the individuality of each brand. The President is responsible for offering guidance for the creation, management and alteration of brands; these decisions are communicated with branch managers for execution in line with the group's brand strategy. Branch managers may customize the brand to a certain extent to suit their locality.

- Brand Policy: A centralized strategy that accommodates the development of individual brands.
- Brand Management: The head office outlines, controls and adjusts brand strategies throughout the Company, while individual branches execute them accordingly.
- Brand Structure: Centralized brand structure while catering for the individuality of each brand.



Comprehensive Network of Physical Channels

Chunghwa Telecom values consumers’ voices. Our marketing activities involve more than just conveying technical features of the products and services we offer, but are guided by stringent service standards established from consumers’ point of view. With a diverse range of service channels at disposal, the Company provides consumers with the most comprehensive, quality and efficient services.

We have been constantly adjusting our service locations to accommodate the concentrating urban population. With 742 service outlets nationwide in 2016, we continually expand our service centers to provide customers with more convenient and useful services.

We provide manual of products and services informing product characteristics and application, consider the negative overusing effect to consumers, and place friendly reminders in marketing. In addition, Chunghwa Telecom has instituted the “Channel Sale Support Items Management Guideline” and the “Channel Sale Support Items Management Implementation Procedures” to make the display of sale support the items and operation management at all service and business locations consistent, and allow for a positive service environment for the consumers. These are vital for maintaining the professional superior image and service quality of Chunghwa Telecom. In 2016, no violation of health and safety and product labeling was reported.

Upgrade and Transform Physical Channels

We have launched the transformation and upgrading plan for the stores to renew our service quality and allow consumers to receive quick and convenient service. Related measures are:

- Develop more business locations for bolstering our service network: by the end of December 2016, we have established 167 service centers, 463 stores, and 279 franchised stores, which made up the total of 742 service stations.
- Set “district consultant” who is responsible for coaching retail store management and marketing performance, to enhance the management efficiency of the store operations.
- Establish the system of self-inspection, audit, and supervision for service quality; all stores must conduct self-inspection and business offices will conduct random inspection and audits to upgrade over-the-counter service quality.
- We actively support the “Green Consumption” program of the Environmental Protection Administration, Executive Yuan, as part of our energy conservation and environmental protection initiative. More than NT\$ 59 million worth of energy-saving products were sold in 2016. We expect to convert 406 service centers into “Green Stores” in 2017, and sell more than 3 environment-certified products through each of them. Through the introduction of “Chunghwa Telecom Green Stores,” we encourage consumers to make green products the priority of their purchases.



Hami Wallet - Easy Shopping

We continue to promote mobile payment as a hassle-free way of paying for purchases. Starting from 2016, Chunghwa Telecom has been accepting customers' request to apply for or replace 4G NFC SIM cards at service outlets. Users of the NFC-enabled cellphone may simply download the “Hami Wallet” App to register their EasyCard and NFC-enabled iPass. After completing activation and the required downloads, Customers may begin making payments with their cellphones in the same way they would with an EasyCard or iPass.



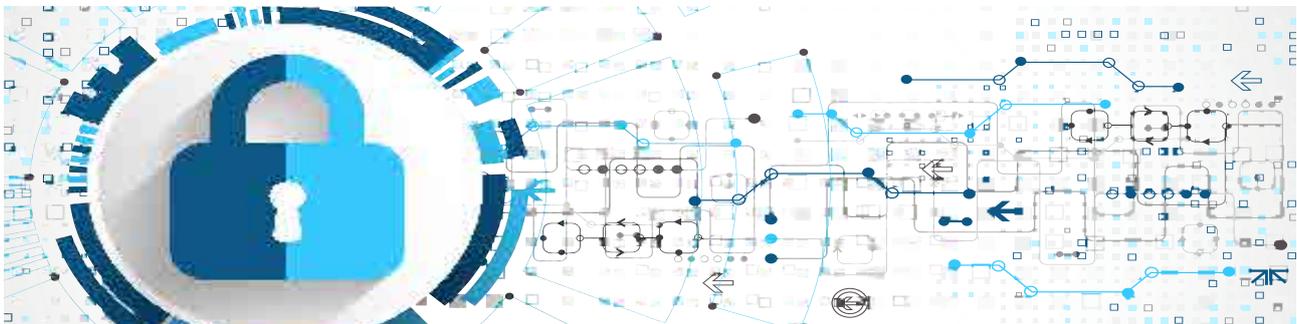
Quantity of Products and Services	Approximately 2,873 unit.
Customer Service Kiosks	Serve as the “Drop-off Section” for business and engineering-related information. Upon receiving new business or engineering-related information, the accountable employee first verifies the information according to SOP, then drafts FAQs and uploads them onto the customer information station for use by Chunghwa Telecom’s customer service personnel (at service outlets and call center) and Internet counter.
Consumer Hotline	Provide complete information on the features of products and services, and related special offers.

● Proper Management of Personal Information

Chunghwa Telecom duly observes the Personal Information Protection Act in the collection, processing, and use of personal information and guarantees the security of customer information through the strictly designed management system. We have assembled a Personal Information Protection Task Force under the Information Strategy Committee and complied with regulations of the National Communications Commission by implementing personal information protection policies, organizing information security training, enforcing risk management measures, and creating performance indicators. We also actively enforce personal information management and auditor certification for internal employees, and invest resources into the training of personal information managers and internal assessment specialists.

In 2016, there were 35 cases of complaints on alleged information leaking, increased 8 cases than 2015. Complaints of this type approximately accounted for only 0.0001% of our customer service hotline. Cases of complaints were filed via all available channels, none of which had been proven to violate the relevant regulations.

In an attempt to provide each department with the right incentives to enforce personal information protection, we organize one competition every 6 months and reward top 3 performers with trophies and prizes. The competition rates participants on several aspects including cross-server virus alert, social engineering email test, third-party verification, IRMAS (Windows patch, virus code update), and personal information incidents.



Marketing Services

<p>Policies and Procedures</p>	<ul style="list-style-type: none"> The following personal information-related policies were amended in 2016: the “Information Security Management Policy and Implementation Rules,” the “Personal Information Protection Policy,” “Information Security and Personal Information Risk Management Policy,” the “Information Security and Personal Information Document and Record Filing Policy,” and the “Personal Information Incident Prevention, Reporting and Responsive Procedures.” To conform with the Personal Information Protection Act, the Company added new documents including the “Consumer Personal Information Gathering Advice” and the “Consumer Personal Information Request and Processing Reply Form” for consumers to inquire, retrieve and make duplicate copies of their personal information, or to unsubscribe marketing messages and have their personal information removed from file after termination of service.
<p>Management</p>	<ul style="list-style-type: none"> The Company has obtained ISO 27001 certification for information security system, and was the first Taiwanese mobile carrier to be validated by NCC for “ISO 27001 - International Information Security Management System” and “NCC ISO 27011 - Telecommunication Supplements.” All customer service hotlines have been certified for BS 10012. The customer service system also adopts ISO 27001 standard and has passed certification for “ISO 27001 - Information Security Management System.”
<p>Personnel Control Mechanism</p>	<ul style="list-style-type: none"> Consumers’ basic profiles are classified as “highly confidential,” and data are locked in dedicated cabinets. All employees are required to sign a “Confidentiality Agreement,” and line managers are held jointly responsible for any breaches committed by their subordinates. If an outsourced service involves business secrets, the contractor and its workers would also be required to sign the confidentiality agreement. Employees who access customers’ personal information over the computer system will have inquiry history stored on file and audited by the manager on a regular basis.
<p>Customer Service Control Mechanism</p>	<ul style="list-style-type: none"> Customer service operations are carried out within the boundaries outlined in the “Customer Service Department Personal Information Protection Manual.” The Company promotes proper awareness on a regular basis; an organization-wide awareness program was held in 2016 with detailed records kept for future reference. The Company has a personal information incident procedure in place that requires the customer service center to handle all leakage of personal information by the “Customer Service Department Personal Information Incident Procedure Handbook.”

Refined Customer Service

*Chunghwa Telecom's customer service principles - "Listening, caring, and engaging."
We serve customers with passion and professionalism;
we relentlessly refine and pursue better service quality.*

To focus on enhancing service quality, the customer service hotline has obtained many international certifications over the years. Since the end of 2016, the Company has set its goals to deliver the best customer experience. Some of the customer experience indicators and service quality indicators were therefore implemented at points of direct and indirect contact with customers. We tapped into these points of contact by gathering customers' voices and applying big data analysis to uncover hidden problems and ways to optimize existing procedures. We also use big data analysis to learn customers' true needs and take the initiative to care for customers and offer customized services and products. Chunghwa Telecom's customer-centric brand commitment and its efforts in promoting customer experience management across all channels were awarded the "2016 APCCAL Awards - Best Customer Experience Management in Taiwan."

We treat customers with respect and welcome them like family. We value training and skill development of our employees, and have internal consultants and counselors in place to guide service staff through every critical moment of contact they have with customers. We strive to deliver service in the utmost "sincerity, patience, compassion and attentiveness."

Customer Service Location/Size	The Company has 15 customer service centers and customer service personnel average 3,400 in 2016.			
Multi-channel Customer Services	<ul style="list-style-type: none"> • Voice • SMS • Web service • Web chat 	<ul style="list-style-type: none"> • Web call • Mobile app • Social media ("Chunghwa Telecom Dr.Q Fan Page") 		
Training and Outcome	<ul style="list-style-type: none"> • The Company has spent substantial training resources to develop employees' skills in a variety of aspects including business, information protection, service, assuring consumers the most consistent and top-quality service experience. • For the safety of consumers and our frontline service staff, the Company has implemented emergency response mechanism at service counters and call centers to respond to accidents, natural disasters or threats. These measures enable our service staff to respond to the crisis at first sight until the situation is taken over by the proper handler. 			
Customer Service Management Mechanism	<ul style="list-style-type: none"> • The implementation and periodical advocacy of customer service management operations of control area is executed in accordance with the "Customer Service Personal Data Protection and Management Manual." We reached 100% advocacy companywide in 2016, and retained records for future reference. • Established a personal information incident handling process. In the event of personal data leakages, the call center shall be properly handled by the procedures set out in the "Procedures for the Administration of Personal Information Event Management." 			
	Year	Total Participants	Total Training Hours	Average Training Hours
	2016	7,487	171,355	22.9
	2015	7,838	166,960	21.3
	2014	9,834	213,650	21.7

Refined Customer Service Training

To further refine our customer-centric services while inspiring passion among customer service staff, 6 sessions of "Customer Service Charisma Workshop" were held in Northern, Central and Southern Taiwan in 2016. The course was held at Chunghwa Telecom's training facilities in Banqiao, Taichung, and Kaohsiung, and made available online for remote teaching. A total of 349 people participated in the training.

Innovative Customer Service

In the era of mobility, cellphones have become an essential device that people use to connect to the world. Meanwhile, the demand for mobile service has increased significantly due to the introduction of 4G technology. We value customer service as the most important factor in maintaining relations and trust, and the key to delivering higher customer experience. We started integrating voice applications into our customer service platform in 2016 and developed related technologies that help us quickly understand customers' problems and find solutions at a lesser cost.

- Interactive voice response (IVR): Improvements were made to IVR not only to provide customers with brand new call experience, but also to help them find the services they need while reducing the time they spend listening to options. The system has so far completed its phase 1 functionality and stress test. It is expected to be launched by the end of 2017.
- Voice recognition: The App is an important way for the Company to communicate with customers. To enhance customers' experience, the Company has so far completed a structure of the voice recognition system and is currently developing the required functions. In the future, customers simply need to speak to their phone to have the App present the requested information.
- VOC and smart quality inspection: Chunghwa Telecom records and analyzes customers' calls to learn customers' real voice. Our focus in the beginning stage of development is to convert words, phrases, and sentences spoken by customers into texts, so that we may have a complete picture about what customers want and take steps to meet their expectations.
- Text/SMS-based customer service bot: As mobile Internet grows popular, texting has emerged to become a new way to serve customers. A text bot offers the advantage of quickly gathering information from customers without having to worry about information leak.

Commendation for Best Customer Service Officers

To inspire passion and professionalism among customer service officers to constantly exceed consumers' expectations and build Chunghwa Telecom's outstanding service reputation, we annually reward customer service officers who receive praises from customers, and accept these credits as part of their performance appraisal. Candidates are given prizes and commendations depending on the level of excellence they have achieved. Meanwhile, a "Service Excellence" section has been created on the Internet to publish cases of excellent service for officers to share, learn and download.



 Video of the event



Thank You for Recovering My Cherished Memories

Ms. Chou was in a dilemma. Her cellphone crashed and had to be reset, but doing so would wipe out all existing data, including many precious photos.

In an attempt to preserve her photos, Ms. Chou approached several hardware service providers to no avail. As her last struggle, Ms. Chou called Chunghwa Telecom's customer service hotline and reached customer service specialist Wen-Ting Lo, who spent nearly 5 hours helping her find the proper solution. After returning 6 calls, Lo was able to patiently guide Ms. Chou to complete a version upgrade and solve her problem.

Customer service specialist Wen-Ting Lo was later commended by Ms. Chou, which Lo responded that "treating all customers like family" is what every customer service officer is expected to do; being able to solve customers' problems is the best encouragement and the most satisfying experience of her job.

● Ensure Service Quality

Chunghwa Telecom makes ceaseless efforts to expand the volume and upgrade the quality of our 4G mobile communication system. We introduced advanced technologies such as Carrier Aggregation and Voice over LTE, which echo with the 900/1800/2600MHz base stations. This arrangement allows for the coverage of service from points, lines, and to planes for even more extensive and better quality mobile broadband network service.

Given upcoming demands for digital convergence and new digital lifestyles, Chunghwa Telecom has launched high-speed fiber services at 300Mbps to satisfy users' need for high-speed applications. With this service, Taiwan has formally progressed from the megabit era to the gigabit era. In support of the government's "Digital Convergence Program," Chunghwa Telecom made the budget to invest NT\$ 100 billion over many years, and had accomplished its goal to accumulate 7.2 million optic fiber users and 11 million wireless broadband users by 2015. To support the "DIGI+2025" initiative introduced by the Executive Yuan, we expect to increase the coverage of 1Gbps network to 72% by the year 2020.

Wireless Internet Connectivity Aboard Public Transportation

By integrating 4G mobile network with Wi-Fi service, Chunghwa Telecom brings wireless Internet connectivity to public transportation, giving people more incentives to ride public transportation instead of personal cars and motorcycles. This solution not only contributes to the reduction of energy and carbon, but also solves traffic congestion as well.

Application on buses

Chunghwa Telecom has been collaborating with Hsinchu City Government to introduce "Free 4G Wi-Fi on Bus" by installing Mobile Wi-Fi kits on 20 buses including Hsin Chu Bus route number 1 and Champion Transportation routes number 50-53. This equipment has been integrated with iHsinchu to enable authentication for free wireless Internet service. Meanwhile, the Company also works with Taoyuan City Government to support the "Urban 4G Smart Broadband Application Subsidy Program" introduced by the Ministry of Economic Affairs, and has chosen 95 buses from 8 bus routes to provide free "4G Wi-Fi" service. Commuters simply need to log in to "iTaoyuan or iTaiwan" to connect to the Internet for free.

Application on Taipei MRT

To improve the quality of Internet service, we have installed 870 public pay phones throughout 117 Taipei MRT stations, and fitted 279 pay phones with Wi-Fi APs. In 2016, the MRT payphone Wi-Fi system received 18.55 million users, 28.79 million connections, and transmitted 102TB of data in total.



Application on Taoyuan Metro

We will be providing complimentary Wi-Fi service on Taoyuan Metro. Currently, we have completed the installation of 84 Mobile Wi-Fi kits on 31 trains (including 20 commuter trains and 11 express trains). Once Taoyuan Metro begins operation, the commuters will be able to enjoy complimentary Wi-Fi service.

Chunghwa Telecom's 4G service may also be used for the safety of Taoyuan Metro. In-car images, for example, can be transmitted back to the Operational Control Center for real-time monitoring; furthermore, accidents can be quickly notified to facilitate timely rescue.

Application on High-Speed Rail

Chunghwa Telecom is currently conducting PoC tests with Taiwan High Speed Rail Corporation and has Mobile Wi-Fi kits installed in two cars. We expect to commence service on all high-speed trains in 2017 officially.

Expand Wireless Hotspots

We have also supported the government's initiative in promoting free wireless Internet services on a nationwide scale. With the availability of a reasonable Wi-Fi rental package, a robust user authentication platform and a nationwide maintenance/monitoring system, we have helped the government deploy free Wi-Fi hotspots all over the country. By the end of 2016, we have installed more than 55,000 public Wi-Fi hotspots, giving users access to stable, high-bandwidth and densely covered Wi-Fi service.

In terms of social engagement, we have been working with local county/city governments to install hotspots and enable Internet access during festive occasions, such as the 120 hotspots installed for New Year's Eve event and the 53 hotspots installed for Lantern Festival. Overall, the Company had spent more than NT\$ 2.17 million in this regard.

Ensure Customer Satisfaction

To make sure that consumers' needs are satisfied, we conduct customer satisfaction survey for Chunghwa Telecom service center, customer service hotline and installation & repair service every year so that we can provide the best possible service and continuous improvement on our services. In addition to regular customer satisfaction survey conducted by the third party, we also accept NCC's service quality survey on telecom carriers on a regular basis. The results show that our performance is significantly better than the standard requested by NCC.

Item	Target	Performance
Landline Connection Rate	≥95.6%	98.18%
Interruption Rate of Mobile Phone Communication	≤3%	2G: 1.66% 3G: 0.35%
Packet Loss % in Data Transmission	≤3%	0.1888%

Note: Measured in 2016.01 – 2016.12

Consumer Satisfaction Survey

We conduct a broad variety of satisfaction surveys to identify consumers' most concerned issues and expectations, and use these findings to guide our future improvements.

After each survey, consumers' opinions and suggestions are conveyed promptly to product or business personnel (including Risk Management and Public Relations Departments) using the consumer feedback system. Furthermore, consumers' opinions are brought to the attention of the head of product and customer service departments, and discussed in monthly meetings to ensure that consumers' expectations are met.

Consumer Category	Survey Method	Survey Result
 Customer Satisfaction Survey	Dialing out manually from our call centers	4.64
 Large Enterprise Small and Medium Enterprise Average Consumer	Designate external market survey company to conduct consumer satisfaction survey	9.34 8.17 7.45

Regarding the items belonging to the fourth quadrant (high importance and low performance) according to the results of the annual satisfaction survey, we will request relevant functional units to conduct further analysis and propose concrete improving measures annually. Also, there will be a follow-up keeping track of the condition of corrective actions next quarter.

KPIs for Customer Service Hotline

Chunghwa Telecom was the first (in 2011) telecommunication carrier to have call center certified for “ISO 10002:2004-Customer Complaint Management System.” The Company sees customer’s complaints as opportunities to make ongoing improvements. We have imposed rules to resolve customers’ dissatisfaction, complaints and opinions within 3 working days, and hence ensure continuous improvement of service quality.

Apart from the customer service hotline, consumers may also use the corporate website or the Representative line authorized by the President (02-2344-6789) to raise complaints to the assistants of the senior executives directly. To further enhance consumers’ satisfaction, we have collaborated with external institutions to develop a detection system for potential customer complaints while at the same time taking steps to improve on the complaints raised. Owing to our effective control, the National Communication Commission, NCC’s 2016 “Telecommunication Consumer Complaint Monitoring Report” showed Chunghwa Telecom exhibiting the lowest complaint rate among peers.

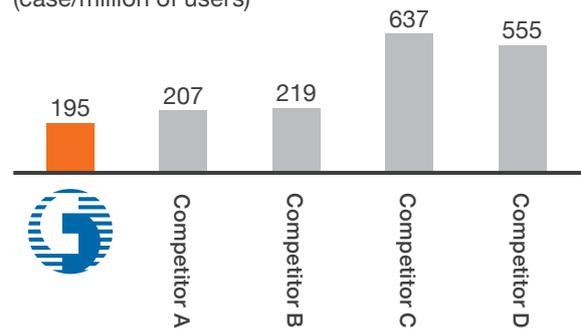
KPIs	2014	2015	2016
Customer Service Response within 20 Seconds	74.0%	78.5%	77.4%
Service Satisfaction (5-point scale)	4.6	4.61	4.64

Lowest Average Cases of Customer Complaints

According to a statistical analysis of mobile communication customer complaints conducted by the NCC in 2016, Chunghwa Telecom is the service provider with the least complaints per every million of users.

In the future, we will further improve our service quality by simplifying our complaint process for consumers’ convenience, so that all consumers’ needs can be addressed in a professional and timely manner.

Complaints per Every Million of Users
(case/million of users)



● Enhance Disaster Response and Communication Coverage

Chunghwa Telecom continues to install repeaters, backup wireless routers, and backup power supplies to increase 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 may stay connected even when the power supply is disrupted due to natural disasters.

Response Measures	We conduct annual rehearsals on a broad number of situations from coordinating 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 would not disrupt another base station nearby.
Occurrence of Disaster	If communication is severely disrupted in the unfortunate event of natural disasters, we will take contingency measures (such as microwave radio, satellite transmission, portable base station, etc.) depending on the actual circumstances to maintain communication between the disaster locations and the outside world.
Special Cases	Areas that are enclosed and accessible only through one road, such as Suhua Highway, are covered using multiple base stations so that even if one station were to be damaged due to natural disaster, other paired stations may still function and keep the area covered with signals. This arrangement has served its purpose in major accidents happened in the last two years, and kept the disaster area connected at all times.

■ Disaster Reporting and Upgraded Safety

Sought to minimize the impact of disasters through prompt information communication service, Chunghwa Telecom's "Emergency Response SMS System" sent out more than 320,000 SMS alerts in 2016. Its role in disaster prevention and notification is outstanding; in addition, a "Public Warning System" (PWS) was established in support of the national policies. Between September and December 2016, the PWS was activated 4,367 times to disseminate messages concerning landslides, earthquakes, and roadblocks in various parts of Taiwan.

In 2016, we assisted the Ministry of National Defense and Nantou County Government in organizing the "All-out Defense Mobilization Drill," assisted Taipei City, New Taipei City, Taoyuan City and Keelung City Governments in the "Coordinated Disaster Prevention and Rescue Drill," and participated in the "Nuclear Safety Drill No. 22" at Taiwan Power Company's 3rd nuclear plant.

📎 Green Base Stations

1.Green base stations:

A small percentage of base stations have been fitted with solar energy modules; some environmentally suitable base stations were upgraded with axial-flow fans and used natural air below 27°C Celsius for cooling (free cooling). Currently, a total of 551 base stations use free cooling, saving 1.87 million kWh of power between 2008 and 2016.

2.Renewable energy-powered base station:

Chunghwa Telecom was the first in the industry to embrace green energy by installing solar power systems with 2 to 3 kW rated capacity at 6 of its base stations in 2008. This movement was made to experiment using solar energy to power base stations. By the end of 2016, Chunghwa Telecom had installed solar energy modules with 1 to 2 kW rated capacity for 10 base stations located in remote areas. These solar modules provide base stations with clean, carbon-less energy under normal circumstances, and can be used to power emergency communication if primary power is disrupted due to natural disasters.



● Alleviate Public Concerns over Electromagnetic Waves

Research conducted by international organizations including WHO has found no conclusive scientific evidence regarding the harmful effect of electromagnetic waves on human health. Nevertheless, to eliminate customers' doubts, Chunghwa Telecom ensures strict compliance with the authority's safety standards when constructing telecom infrastructures.

In 2016, Chunghwa Telecom was incurred NT\$ 6.5 million of fines and administrative penalties on 13 counts of violation associated with base stations. These violations had occurred as we sought to address consumers' demand for "good reception" and concern towards "negative health impacts from base stations." The Specific Absorption Rate (SAR) of all mobile communication products 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 consumers' rights to quality communication, the Company will strive to comply with regulations by taking precautions at different stages of installation.

Step	Content
Communication and Assessment Phase	Assess factors such as the size and concentration of population, radio coverage, and the number of customer complaints, the capacity of existing base stations nearby, and residents' tolerance towards a new base station. Once consent has been obtained from the building management board or residents, the Company may proceed to rent land and space for the construction of base stations.
Installation Phase	Information of the proposed base station is submitted to NCC for review; installation may begin only if the proposal passes the review.
Pre-operation Phase	<ul style="list-style-type: none"> Conduct emergency phone tests to pass NCC's base station assessment tests that have been developed based on the standards developed by International Commission on Non-Ionizing Radiation Protection (ICNIRP). Conduct routine tests to verify the functionality and coverage of the tested equipment. All our base stations have been tested to exhibit power density that complies with standards.
After-operation Phase	<ul style="list-style-type: none"> To prevent antennas from promising visual appearance, the Company will coordinate with other carriers to make coherent and integrated base station designs that conform to the overall environment. Doing so would minimize environmental impacts and facilitate more effective use of limited space. The Company had completed visual improvements on 63% of base station antennas under "Regulations for Administration of Base Stations of Mobile Communications Network Businesses." The Legislative Yuan passed the "Recognize performance credit for offering state-owned building or land in base station construction." This new policy will improve communication quality.

📎 Advocate the Accurate Understanding

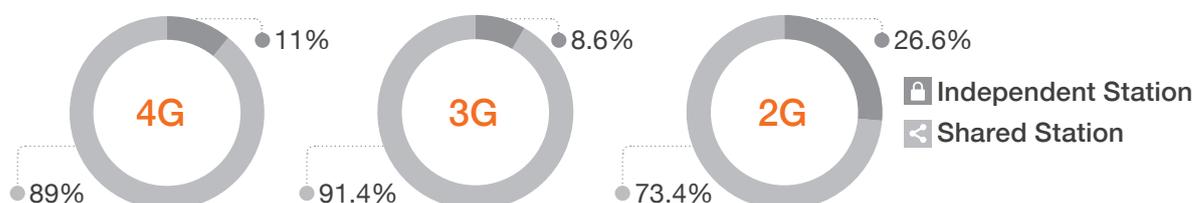
Chunghwa Telecom has been working closely with Taiwan Telecommunication Industry Development Association to convey to the public the correct information about electromagnetic waves, by organizing conferences and issuing promotional materials.

- The Company joined NCC and 19 county/city governments nationwide to host 19 seminars on the topic of electromagnetic waves. 168 complimentary electromagnetic wave measurements have been completed to date; all results are compliant with government regulations.
- Local government bodies were issued promotional materials and pamphlets on the knowledge of electromagnetic wave, which could be distributed to the public during various activities to promote proper understanding.

*Taiwan Telecommunication Industry Development Association: <http://www.ttida.org.tw/>

*Base Station Electro Magnetic Field Network: <http://www.emfsite.org.tw/>

Types of Base Stations Installed by CHT



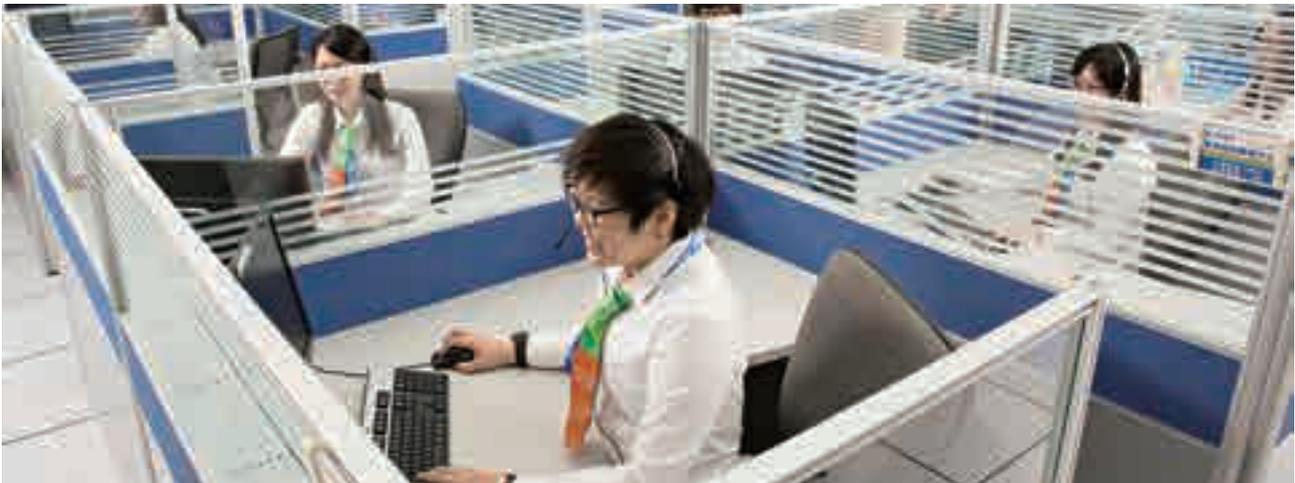
Note: Installed on existing buildings.

● 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 authorities to fight fraud and to protect the property of the public.

Resources Committed	<ul style="list-style-type: none"> • There is an average of 11 customer service personnel that joined the service every month for working with the Criminal Investigation Policy Bureau in the concerted effort in front-line duties. • “Disconnection Service Fraud Prevention System” offers the information on suspected telephone gimmick for cheating customers and timely settlement of the problem. An average of 3 customer service personnel participated in the program monthly.
Prevention of Fraud	<ul style="list-style-type: none"> • A two-way, SMS-based authentication system was introduced for small-sum payments. • A scam alert was added in all SMS authentication messages.
Progress in 2016	<ul style="list-style-type: none"> • The hotline received 241,231 calls, and 19,388 cases of fraud were referred to the authority. • The Company assisted Criminal Investigation Bureau, National Policy Agency in disconnecting 1,713 phone numbers, and successfully stopped 1,396 scams.



■ Reduce Negative Impacts

The Internet has emerged to become the main form of media due to the convenience it offers; however, the convenience also gave rise to significant negative impacts. We have introduced numerous measures in line with NCC’s new “iWIN-Internet Content Protection Institution” to minimize negativity circulating the Internet, and thereby provide consumers a healthy, trouble-free network environment.

Anti-virus and Anti-hacker	By using a HiNet mailbox, customers can enjoy free webmail service. Through simple setup, users can decide whether questionable e-mail will be automatically deleted in the future. Also, we continue to monitor formulation of regulatory obligations of the “Regulatory Regulations on Commercial Spam Electronic Mail.”
Adult Content	Provides the “K12 Mailbox Forced Isolation,” the “HiNet Adult Content Gatekeeper,” and the “Mobile Adult Content Security Guard” to keep children and teenagers away from harmful websites.
Usage Time Control	“HiNet Online Time Management Service” and mobile phone “3G Talk Without Worries” programs, give parents effective control on mobile phones and Internet uses.
MOD Parental Lock	The parental lock can be set at “Protected” or “Parental Guidance.” Settings are in effect immediately once passwords are entered. By using the parental lock, customers may protect children from contents that are considered bad influence.

* iWIN: <https://i.win.org.tw/iWIN/>



Employee Care



● Protect Employee Rights ¹⁰²⁻⁴¹

Chunghwa Telecom treats employees as the most important business partners. For best protection of employees' work rights, Chunghwa Telecom signs "employment contracts" with individual employees and notifies them of changes in terms of employment by Labor Standards Act. Furthermore, we exploit various communication channels including seminars and labor-management meetings to maintain a harmonious and mutually beneficial working relationship.

■ A Competitive Compensation System

We have a "Compensation Committee" in place to ensure the competitive compensation for the best talents. In addition, the Company has a transparent system of sharing business performance with its employees. Compensations for the executive management have been standardized with details publicly disclosed in annual reports. The Company offers equal compensation for 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 certification. Under no circumstances will the compensation be determined based on gender or racial differences. In 2016, we raised employees' salaries by an average of 0.81% and a maximum of 1.68% as a response to the government's new employment policy, and to boost employees' morale against market competition.

S strategy

Chunghwa Telecom is committed to providing employees with “assurance,” including their work rights and freedom of association. The Company takes the initiative to care for employees’ needs, and implements communication channels to facilitate exchange of opinions between the employer and employees

M anagement

Ensure all employees enter into a formal “employment agreement,” duly observes the Labor Standards Act and other applicable laws, and calls for labor-management meetings at regular intervals

A ction

- The Company has a specialized training facility - “Telecommunication Training Institute” and an occupational safety and health department in place
- The Happiness at Work Survey
- Transparent and diverse means of communication and grievance

R esponse

The only Taiwanese carrier with union establishment

T arget

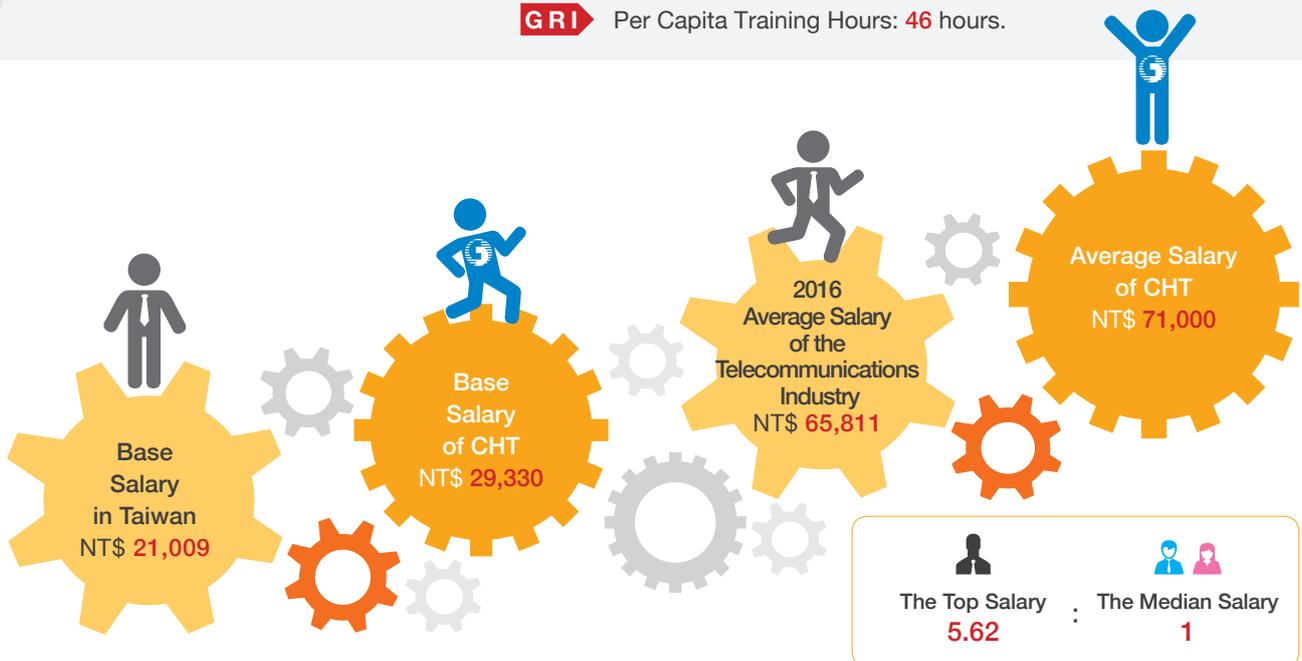
Foster talents and allow all employees to share the results of operations

I ndicator

GRI The basic salary offered by Chunghwa Telecom is **1.39** times the minimum wage in Taiwan.

GRI Employee Satisfaction Survey on “Employee Happiness” with an overall scoring of **80** marks.

GRI Per Capita Training Hours: **46** hours.



Note. 1. According to Executive Yuan Directorate-General of Budget.
2. The level of basic-level employees (including males and females) is 0.

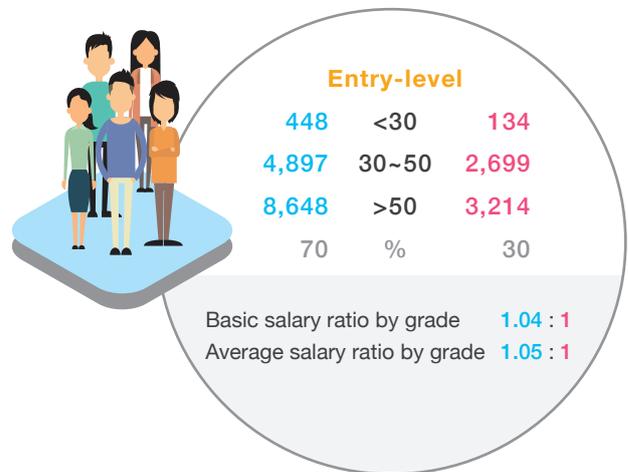
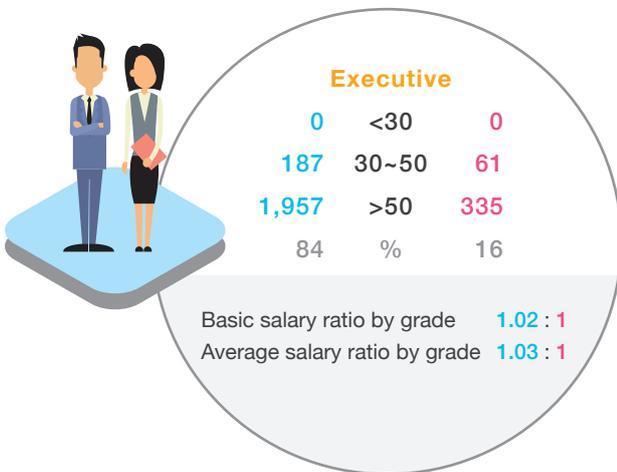
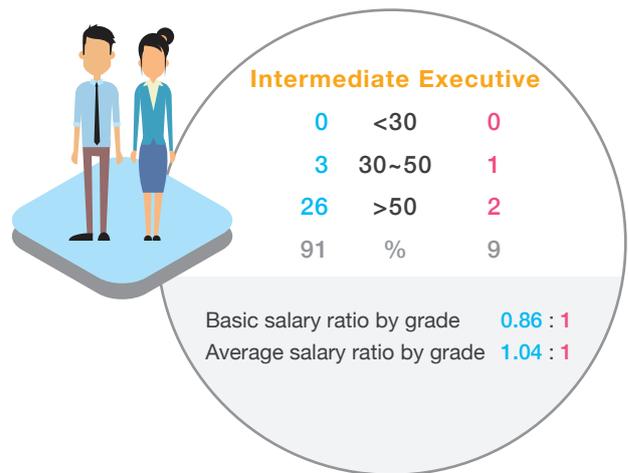
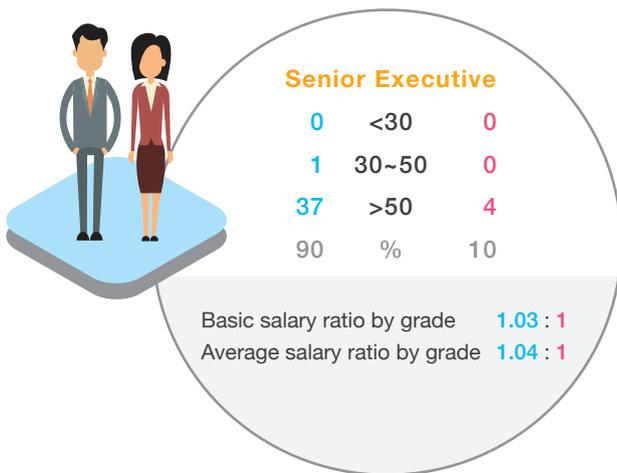
Human Resource Structure ¹⁰²⁻⁸

Male Female



Total Employees **22,654** persons

16,204 71%	Total employees	6,450 29%
448 2%	Under 30 years old	134 1%
5,088 22%	30-50 years old	2,761 12%
10,668 47%	Over 50 years old	3,555 16%



Aboriginal employee
A total of **41** persons

26 persons | **15** persons

Disabled employee
A total of **795** persons

525 persons | **270** persons

Specialist
(Fixed-term contracts)

6 persons | **6** persons

Note: 1. All employees are full-time; all employees are Taiwanese.
2. For all grades, basic salary is defined as fixed salary (monthly).
3. For all grades, average salary includes fixed salary and variable portion (including monthly salary, year-end bonus, performance bonus, etc.)
4. Levels of all grades: Basic-00~10; Executive-11~16; Intermediate Executive-17; Senior Executive-18~22.

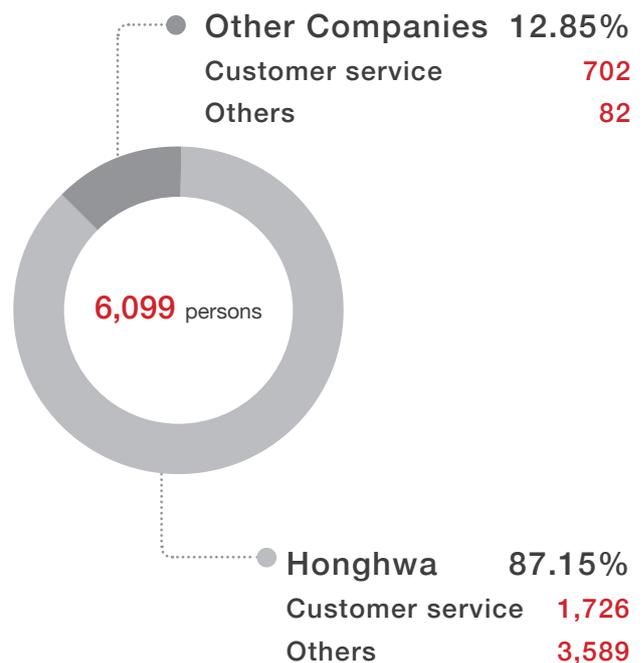
New Recruitments



Human Resource Structure of Honghwa Subsidiary

Under 29 years old	1,006	1,514
30-50 years old	1,452	1,483
Over 51 years old	20	32
Total employees	2,478	3,029
Disabled employees	29	18
Aboriginal employees	13	15

Outsourcing Human Resource



Note: All employees are full-time; and all employees are Taiwanese.

Gender Equality and Diversity

Chunghwa Telecom values human rights and gender equality at work. In 2016, female staff accounted for 28.47% of total staff, while female managers accounted for 25.41% of total managers. To conform with the essence of Act of Gender Equality in Employment, the Company has outlined its sexual harassment prevention policy and established a “Complaint Investigation Committee” that specializes in handling employees’ complaints regarding work-related discriminations and improper behaviors. The investigation committee has 5 members, with 3 female members. Because of our effective control, no incident of discrimination was reported in 2016.

With regards to the diversity of manpower, we have been hiring persons with disabilities above the quota specified in Article 38 of Persons with Disabilities Rights Protection Act. In 2016, the number of persons with disabilities hired by the Company was 3.66 times more than the statutory quota (statutory quota: 212; actual hire: 795). As for the 41 indigenous employees onboard in 2016, we fully respect their cultures, and therefore no violation of work rights or human rights was reported during the year.

The Only Taiwanese Carrier with Union Establishment

Chunghwa Telecom is the only telecommunication carrier in Taiwan with union establishment; it has also signed a collective bargaining agreement with the union. This agreement 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 protect employees’ interests. In addition to the union established by Chunghwa Telecom, employees have also assembled 11 other unions under the organization. In 2016, 99.86% of employees had attained union membership. A director seat has also been reserved for workers’ representative, so that employees can more freely express their opinions.



Note: Chunghwa Telecom complies with Article 16 of the group agreement with regards to job transfers. If there is a need to transfer a union member due to organizational changes (such as establishment, alteration, merger, and termination of department), the Company will arrange so only if necessary and will respect the member’s will. In addition, all transfers are bound to comply with the “Five Principles” stated in the Labor Standards Act.

Open Communication and Complaint Channels

We have open communication channels in place to make sure that employees’ needs and suggestions are heard. Any violation or misconduct discovered at work can be reported to the relevant department using the channels provided. Chunghwa Telecom received no internal complaint regarding human rights issues in 2016.

We hold regular labor-management meetings to maintain active communications between employees and the employer. Employees and the employer each assign 9 representatives and take turns to chair the meeting. The Chairman and President of Chunghwa Telecom constantly engage with the union’s Chairman, Directors, and Supervisors in communication via meetings and telephone. The Chairman of Chunghwa Telecom Workers’ Union is entitled to participate in disciplinary review meetings, performance appraisal meetings, and business report meetings to make sure that workers are kept up to date on news of the Company.

In 2016, the Company held 5 nationwide labor-management meetings and 1 extraordinary meeting, during which employees and the employer were able to reach consensus on many issues. Furthermore, the Company held 6 coordination meetings to discuss terms of employment, including the removal of mandatory requirement to take the 7-day special leave.

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

Value Employee Training and Development

We adopt a business focus of “core competitiveness, professionalism, efficiency, and service” and seek to develop innovative talents through a combination of internal and external training.

We have a comprehensive training system to assist employees’ development in all dimensions. The system incorporates “needs analysis” and “in-depth planning” before a program begins, and follows up with performance assessment and review after a program ends. This systematic approach enhances employees’ professional skills and work efficiency, and enables the Company to make better coordination of human resources.

Talent Development Strategies

Chunghwa Telecom’s Telecommunication Training Institute has devised human resource development strategies based on the organization’s business focus us and talent requirements between 2016 and 2018.

- Alignment of training and business development
- Nurturing of managerial talents
- Professional training
- Digital and diverse learning

Social learning

Chunghwa Telecom has introduced an online learning social network (the Digital College) and an e-Learning approach, unlike the conventional classroom teaching. Instead of one-way teaching, the social network provides an environment where users may share and transfer knowledge at lower cost and yield better results. The broadband installation college, for example, is a platform where information such as technical documents, cases, video tutorial, and technical discussions can be exchanged and learned.

Online broadcast

Online broadcasts can be used to teach topics related to specific works. They are delivered over the internal UC platform, and offer employees a fast and convenient way to learn new knowledge and trends. Topics covered in 2016 included: new ICT technologies, big data applications and development, energy and carbon conservation trends, green energy, marketing information, and business administration. 113 training sessions were held to a total audience of 8,369.

Results

1.Information security certification

- 4 employees obtained EC-CHFI certification and 32 employees obtained EC-CEH certification in 2015; after a series of focused training, these two numbers had increased to 26 and 39, respectively, in 2016.

2.Improved sales performance

- Employees who underwent the 4G Service Talent Enhancement Program have shown near 15% improvement in sales performance.
- 52% of employees who underwent MOD and Fixed Network Specialist Training have exhibited improvement in sales performance at their respective service outlets.

3.Enhanced professional skills

- Employees who underwent 4G Network Quality Improvement Talent Program have exhibited 15% capacity improvement on average.

4.New business potentials

- The Company organized 31 courses to train facilitators, promoters, planners, designers, and maintenance workers for photovoltaic technology; these courses received a total of 867 enrollments.



Dedicated Training Units

In order to sustain competitive advantage, Chunghwa Telecom has founded a “Telecommunication Training Institute” that specializes in training technical as well as managerial talents in the telecommunication field. Furthermore, a “Talent Development Team” has been convened by the President to conduct regular reviews on the planning and outcome of the Company’s training efforts, thereby making sure that the training programs are practical and closely aligned with operational policies.

The Institute currently offers 870 professional training courses in 18 categories including networking and marketing. It also has managerial courses available to enhance employees’ technical as well as managerial capabilities. A total of 24,646 persons enrolled in professional training courses in 2016, while managerial courses were held to a total of 832 persons.



Diversified Learning Channels

To meet organizational needs, personal interest and personality traits of employees, Telecommunication Training Institute provides a diversity of channels for learning, to help employees develop their professional skills in depth and renew their management skills. These measures help to bring about growth and proper career development of employees.

Employees can receive training at the Telecommunication Training Institute during regular hours and in the evening or on holidays. Telecommunication Training Institute can also dispatch tutors to relevant business units for organizing training. We offer diversified learning channels: class teaching, distance education, digital learning, direct-broadcast courses, Digital College, tutor, take programs externally, and digital library.

New Employee Orientation

The orientation is intended to provide newly recruited with a general understanding of the organization’s vision, values and culture that would help them adapt faster. In 2014, we established “New Recruit Counseling Guidelines for Chunghwa Telecom and Subordinate Institutions” and introduced a counselor system along with digital learning tools to help shorten employee’s learning curve.

Recruitment and Development of the New-Generation Talents

According to an internal manpower survey, Chunghwa Telecom will encounter a retirement wave of senior managers in 5 years. The following measures have been developed in response to the retirement wave and to resolve possible disruptions in the transfer of knowledge:

- Engage Honghua where necessary to fill in shortfalls of frontline staff.
- Recruit additional talents for the R&D of IT, ICT and 4G technologies and to support business growth. Recruitment needs are to be approved on a case-by-case basis.
- Nurturing the next-generation talents: The Company outlines talent-training programs on a yearly basis. It provides employees with professional and diverse training options, and certifies their skill development.
- Emerging businesses: new ICT technologies are being integrated with knowledge in different fields, the Company will focus on training professional talents that can adapt and apply knowledge across different fields of expertise from cloud computing, big data, product packaging, to actual practices.

Fair Assessment Mechanism

Chunghwa Telecom has instituted the “Employees Performance Evaluation Guidelines” which apply to all employees to evaluate the performance of employees and develop the corporate culture where employees, customers, shareholders, and the Company are winners. For particular employees who are underperforming, the Company will give supervision to guide the corrective actions and keep track until improvement is made under appropriate procedures.

Chunghwa Telecom conducts performance appraisal in 3 different levels: entry-level staff, entry and mid-level managers, and senior managers. A 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 at mid-year and year-end to evaluate employee’s contributions to the Company’s performance. During these sessions, managers would also discuss with employees about career plans and suggest courses that are relevant to their future careers. Performance bonus and employee remuneration are tied to employees’ performances.

Nurturing of Professional Talents

Chunghwa Telecom is dedicated to providing employees with a diverse learning environment. In 2016, Chunghwa Telecom incurred more than NT\$ 500 million in training expenses and trained employees for a total of 1.07 million hours. Meanwhile, we encourage employees to commit to life-long learning, offering as much as NT\$ 30,000 of education subsidy per semester. 669 people had applied subsidies, and the Company compensated their efforts for NT\$ 9.21 million.

	2014	2015	2016
Total Training Expense (NT\$ million)	679,171	572,351	529,744
Per Capita Training (NT\$)	28,857	24,733	23,384
Total Training Hours	1,129,809	1,078,140	1,046,253
Per Capita Training Hours	48	47	46

Note: We adopted a precision training policy since 2015 and asked internal personnel to be the instructors in many courses. As a result, the number of budgeted training expenses had decreased while the number of total and average training hours remained unchanged from 2014.

2016 Production and Sales Conference Discussion: IoT

The Telecommunication Training Institute has envisioned itself as a communication platform for “production, sales and research” activities. By facilitating communications, it contributes to reducing the R&D cycle and ensures that production, sales and research activities are coordinated to meet customers’ needs. The conference is where internal departments develop a preliminary understanding of product specifications, goals, and delivery time; these details are further revised based on interactions and feedback from customers to better conform with customers’ expectations.

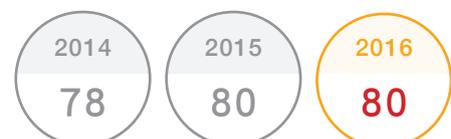
The 2016 IoT Production and Sales Conference had 114 participants. They were gathered to discuss IVS, iEN, eHome, ITS and platforms, which are the five key elements to developing IoT. The conference provides an opportunity for product, R&D and supervisory departments to exchange opinions and communicate in ways that contribute to the development and operation of IoT.

The Happiness at Work Survey

Since 2011, we have been engaging outside 3rd parties to conduct annual “Chunghwa Telecom Happiness at Work Survey” on an anonymous basis. These surveys are designed to measure employees’ satisfaction towards the work environment, welfare and compensation. It serves as a means of learning employees’ opinions and understanding how they feel and what they expect from work.

Since the surveys began, the Company has received an increasing level of satisfaction and response year after year. In the future, we will continue to respond and communicate on employees’ opinions, and provide suitable training to further enhance employees’ satisfaction and happiness.

Employees’ satisfaction measurement (100-point scale)



Occupational Health and Safety

Chunghwa Telecom was the first telecommunication service provider in Taiwan to adopt Occupational Health and Safety Management System (OHSAS 18000). By the end of 2016, the Company already had 27 business groups and branches that passed the international certification. We adopt systematic management to ensure employees' health and safety. In addition to identifying hazards and assessing risks associated with telecom operations, the Company has also applied restrictions and enhanced risk control for high-risk tasks, while taking effective precautions to prevent 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 taking actions in regards to safety and health facilities and measures.

We actively participate in the government's initiatives to promote a healthy workplace. 4 divisions within the Company have received awards under the "National Workplace Safety and Health Campaign" organized by Occupational Safety and Health Administration, Ministry of Labor; Taipei Office of Northern Taiwan Business Group received the "Five Star Award" from the Ministry of Labor to commend excellent performance in terms of occupational safety and health.

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 on Equipment Improvement, Create Quality Work Place.

Conduct Safety Training Programs to Raise Safety Awareness

Dedicated Occupational Safety and Health Management Unit

We have a dedicated "Labor Safety and Health Department" responsible for planning and implementation of labor safety and health matters, meanwhile, "Labor Safety and Health Committee" is established and meets quarterly to deliberate, coordinate and make suggestions on the issues of labor safety and health.

"Labor Safety and Health Committee" consists of 26 members, including representatives from each department units and the labor union as well as technicians and medical personnel, etc. Among which, 9 members are from the labor union, accounted for 35% of all members. 4 meetings were held in 2016 with 12 proposals presented by the labor representatives, of which 5 related to the issue of the improvement of safety and health facilities, 5 related to refinement of safety and health management, 1 related to food hygiene, and 1 related to employee benefits.

			Countrywide
Number of Disabling Injury	14	11	10,668
Disabling Injury Frequency	0.44	0.87	1.39
Disabling Injury Severity Rate	19	36	107
Occupational Injury Rate per 1,000 Workers	0.86	1.71	2.76



Hiring Full-Time Physicians and Nurses to Improve Employee's Health Management

In order to provide immediate medical assistance, we hired 17 full-time nurses and contracted 17 physicians in 2016 specifically to tend to workers' health. They were assigned to perform service at Xinyi, Aiguo, Da'an Industrial Park, New Taipei City, Taoyuan, Hsinchu, Miaoli, Central Taiwan, Chiayi, Tainan, Kaohsiung and Pingtung.

For employees involved in high-risk activities, the Company has deployed 6 i-med System at local customer centers to perform blood pressure measurement and monitor employees' health conditions before performing duties, and hence minimize chances of occupational hazards.

Health Promotions for Senior Employees

A significant portion of Chunghwa Telecom's employees are aged 50 and above, which is why we consider health care an important issue, especially for senior employees. In 2016, we launched a series of health checkups and health management programs for senior employees. In addition to helping them develop physical capabilities, it was also part of our intentions to create a support system among friends.

1. Health checkups: The Company provided checkup services that were specifically targeted at senior employees, including carotid duplex and echocardiography for risk of ischemic stroke, coronary artery narrowing and incomplete closure of heart valve, and fundus photography for checking of macular degeneration, retinal vessel and glaucoma.

2. Health seminars: The Company invited Chief of Rehabilitation Medicine from Taiwan Adventist Hospital to host a seminar on "Prevention of Common Muscle and Bone Diseases for Office Workers," which taught employees that human body functions degrade over time, and the importance of starting plan making to maintain physical health.

3. Participation in external events: Taipei City Government's "2016 Sports Frenzy" and INBODY program, that include analysis and explanations of body composition and introduction to stretching and aerobic exercises that can be performed at home and office; and Kaohsiung City Government's "Walking Against Aging" program.

4. Others: To prevent influenza, Chunghwa Telecom subsidized the administering of influenza vaccines for a total of 1,100 employees.

National Fitness Program

In response to the government's policies and the Healthy Workplace Week introduced by the Ministry of Labor, the Sports Administration, Ministry of Education, commissioned NTU School of Physical Therapy to organize a National Fitness Program in 2016, during which a total of 280 employees from Northern Taiwan Business Group had signed up to learn more about fitness. The program comprised many tests including body measurement (height, weight, waist-hip ratio), muscle strength and endurance, flexibility and cardio-respiratory fitness designed to help employees learn more about their health, develop exercise habits, and ways to maintain them.



 Video of the Sports Enterprise certification



Reducing Occupational Hazards

Chunghwa Telecom’s “Work Accident Guidelines” contain detailed procedures for assessing occupational illness. Employees who are suspected to have suffered from occupational illness are assisted in applying for verification at the local municipal/county/city authority, in accordance with the Act for Protecting Worker of Occupational Accidents.

We manage risks at the source, making sure that construction risks are within control as early as in the design stage. The line construction management system has been added with remarks to highlight high-risk operations along with risk assessment information. The system was launched in March 2015, giving workers the effective means to identify risks and take precautions.

All high-risk operations are subject to approval. 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 falls, oxygen deficiency, etc. To promote employee’s awareness and skills on safety and health, we organized 208 training sessions and received 9,000 enrollments in 2016. The Company encountered 33 cases of occupational hazard in 2016; 20 of which had occurred during work while 13 had occurred when commuting. The top 3 accidents were work-related injuries, traffic accidents while commuting, and falls. Main reasons of these accidents included: lack of attention to road conditions (neglect of incoming vehicles when turning or changing lanes), failure to maintain a safe distance (inability to respond in time), failure to give way, and lack of attention to the road surface. Employees are being reminded repeatedly during Occupational Safety and Health Committee meetings, work safety meetings and training sessions to exercise greater attention over personal safety and safe driving.

	2014		2015		2016	
Injury Rate (IR)	0.07	0.18	0.07	0.11	0.09	0.17
	0.11		0.08		0.11	
Occupational Diseases Rate (ODR)	0	0	0	0	0	0
	0		0		0	
Lost Day Rate (LDR)	2.46	2.80	2.68	2.47	3.79	7.12
	2.56		2.62		4.74	
Absentee Rate (AR)	0.22	0.49	0.28	0.59	0.31	0.66
	0.30		0.37		0.41	

 Male
 Female
 Total

Injury Rate (IR) = (Total number of injuries/Number of hours worked by all employees) x 200,000

Occupational Diseases Rate (ODR)= (Number of occupational diseases/Total work hours) x 200,000

Lost Day Rate (LDR) = Total loss of work days * 200,000/Total work hours

Absentee Rate (AR) (Including personal and sick leaves) = (Total number of missed (absentee) days/Total number of workforce days) x 100%

Occupational Safety Competition

The Company has established a set of “Work Safety Competition Guidelines” as an encouragement to complying with work safety and preventing accidents. Under the guidelines, accidents may include:

1. Traffic accidents occurred while commuting, for which an occupational injury leave of one day or above has been taken.
2. Injury, death or damage from property suffered by employee or others while performing duties or caused by Chunghwa Telecom’s facilities; and damage caused to Chunghwa Telecom’s property while performing duties.

All employees on the roster at the end of December each year are reviewed by the occupational safety unit of the respective institution. Once the assessment results have been approved by the Occupational Safety Committee, employees will be rewarded for the level of safety they have exhibited, according to the terms of the work safety competition. Contesting departments are classified and grouped by work nature and headcount; if no accident occurs for an entire year, employees of that department are awarded prizes equivalent to the full value as an encouragement. For departments that encounter accident during the year, the value of prizes may be halved or waived entirely depending on the frequency and severity of the accident, as stated in the “Work Safety Competition Prize Standards.” In any case, no prize is awarded to the employee that causes the accident in the given year.

Establishing a Happy Corporation

Chunghwa Telecom has set its goals to maintaining “sustainable business operations.” A comprehensive set of incentives and training systems have been established to develop and retain talents. “Peace of mind” is the commitment we offer to our employees, and we refrain from making layoffs and salary reductions so that employees can fully devote themselves to boost performance at work.

Item	Activitie	Number of Participant/ Beneficiaries	Contribution/ Supplement
 Maternity Pension	Company continue to provide subsidy to full term after 6 months' unpaid leave ends (up to 1.5 years)	127 persons	NT\$ 12,350 thousand
 Sports Activity	Regional activities including 74 roads running, 177 hikings, 265 ball activities and 400 other activities (such as employee year-end dinner, travel, etc.)	648,181 persons	NT\$ 15,699 thousand
 ESOT	Improve employee welfare, enhance employee coherence, share company's achievement and establish employee stock ownership committee so that employees' quality of life is guaranteed after retirement or resignation	Approximately 20,000 persons	NT\$ 2,000/ person per month on average
 Dependent Education Subsidy	Twice a year (2 semesters)	31,926 persons	NT\$ 246,463 thousand
 Wedding Subsidy	Wedding subsidy is available for employees who are getting married lawfully	227 persons	NT\$ 568 thousand
 Childbirth Subsidy	Childbirth subsidy is eligible to employees or their spouses for childbirth	512 persons	NT\$ 1,280 thousand
 Funeral Subsidy	Funeral subsidy is available for the death of employees' parents, foster parents, step-parents, spouse and children	902 persons	NT\$ 4,510 thousand
 Group Wedding	Chairman of the board will be invited to be the officiator of the wedding. Besides, venue and wedding gifts will be provided to make an unforgettable wedding ceremony for couples and create a unique business culture in Chunghwa Telecom	45 couples	<ul style="list-style-type: none"> Wedding gift: NT\$ 6,000; a total of NT\$ 270,000 were paid A sum of NT\$ 900,000 were provided to the organizer - the Employee Welfare Committee
 Recreational	Includes integrated stadium, swimming pool, tennis court, badminton court, basketball court, table tennis court, multi-functional event space, karaoke room, and employee dormitory		Total 13,103 square meters

Note: Welfare includes those that are provided for employees of Chunghwa Telecom, and excludes subsidiaries.

 Video of the group wedding



Safe and Healthy Workplace

Chunghwa Telecom considers employees' health as company's fortune. Providing a safe and healthy workplace is the basic requirement of corporate social responsibility. In 2016, our spendings on employee health care reached NT\$ 82,728 thousand. Our contribution in relation to employee health including:

Health Examination of Employees and Dependents	<p>The Company offers better care than what the laws require. Employees are given various health checkup packages to choose from, depending on their age, risk factors of employees and etc. A total of 22,407 (98.16%) employees had taken their health checkup during the year. Employees' family members are also entitled to health checkup at the same rate, and a total of 3,442 people had participated during the year.</p>							
Emotional and Stress Management Seminar	<p>Chunghwa Telecom organized 24 stress management seminars at diverse business locations to help employees manage their emotions. From self-understanding and self-acknowledgment, employees were guided step-by-step towards dealing with emotions, resolving conflicts, communicating with people, eliminating communication barriers, managing stress and improving work performance.</p>							
Employee Assistance Program (EAP)	<p>As one of the large corporation to introduce Employee Assistance Program (EAP), Chunghwa Telecom has started to promote since 2007. The EAP comprises mainly of 5 consultation sessions a year, in which outside experts are hired to help employees resolve legal, medical, family, workplace, and stress troubles. Since 2013, the Company has hired a case manager to provide services on-site, and created an E-Service platform for related matters. The case manager made 3 visits and completed a total of 563 service sessions in 2016.</p>							
Employee Health Service	<p>The physicians visited the plant 35 times a month, and each employee can have 30 minutes for each appointment. The healthcare personnel uses the "Employee Health Management System" for the analysis and evaluation of the health examination record of employees. Where necessary, consultation will be arranged between the physicians and the employees for proper guiding of health and healthcare. Related expenses amount NT\$ 11.65 million.</p>							
	<table border="1"> <thead> <tr> <th>Headcount of medical consultation with physicians (30 minutes/per person)</th> <th>Frequency of on-site physician service</th> <th>Persians/times of consultation</th> </tr> </thead> <tbody> <tr> <td>1,954 persons</td> <td>370 persons</td> <td>6,248 persons</td> </tr> </tbody> </table>	Headcount of medical consultation with physicians (30 minutes/per person)	Frequency of on-site physician service	Persians/times of consultation	1,954 persons	370 persons	6,248 persons	
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1,954 persons	370 persons	6,248 persons						
Employee Health Promotion	<ul style="list-style-type: none"> We have organized 171 health seminars with a total of 11,818 employees participated; 6 sports competitions with 353 employees participated. 118 intellectual trips with 8,611 employees participated. 27 sessions of health examination with 2,320 employees participated, and 429 large-scale events and community activities with 36,223 employees participated. The Company published 2 health-related articles each month to convey the proper disease prevention concept. 							
Healthy Workplace	<p>Our offices are tested regularly on noise, lighting, temperature, humidity and air quality, and are maintained and cleaned on a regular basis to provide employees with a comfortable working environment. Furthermore, all offices feature ergonomic chairs, natural ventilation, indoor plants and other elements of a healthy work environment.</p>							
Employee Cafeteria	<p>Our employee cafeteria offers a diverse range of nutrition-balanced meals to choose from. All food suppliers are subjected to rigorous review to ensure the safety of food served to employees.</p>							
Balancing Work and Life	<p>With 29 hostels established in 2014, Chunghwa Telecom provides travel accommodations and an annual travel subsidy of NT\$ 8,000 to encourage employees to achieve the balance between work and life.</p>							
Flexible Working Hours	<p>Chunghwa Telecom provides 2 sessions of flexible working hours in the morning and afternoon: 8:00~9:00 and 17:00~18:00.</p>							

Encourage the Work-family Balance

We have been implementing an unpaid childcare leave system since 2006 to help employees juggle between work and family. Chunghwa Telecom is required under the Employment Insurance Act to pay 6 months of allowances for employees who have taken the leave; female employees are further entitled under company policies to receive additional monthly allowances totaling half the sum assured under the Labor Insurance Scheme during child care leave, for a period up to 2 years. Employees of Chunghwa Telecom are also entitled to other privileges such as family care leave, paternity leave, menstrual leave, and nursery room. In 2016, a sum of NT\$ 12,349,000 was paid as child care leave allowance, increase NT\$ 5,140 thousand more than 2015; 183 employees applied for maternity leaves; 164 employees applied for unpaid child care leaves; 127 employees applied for child care leave allowance, increase of 23 people in 2016.

Item			Total
2016 The Number of Qualified for UPL for Raising Children (A)	698	368	1,066
The Number of Person Actual Applied UPL (B)	26	138	164
Application Rate for UPL (B/A)	3.72%	37.5%	15.38%
The Number of Reinstatement-to-be (C)	28	147	175
The Number of Application for Reinstatement (D)	15	55	70
Reinstatement Rate (D/C)	53.57%	37.41%	40.00%
The Number of Reinstatement (E)	12	72	84
2015 The Number of Retention Over 1 Year After Reinstatement (F)	12	72	84
The Retention Rate (F/E)	100%	100%	100%

- Note: 1. The number of employees entitled to apply for parental leaves of absence in 2016: calculated by employees who have applied for maternity leaves and parental leaves in 2015-2016.
2. The actual number of employees applying for parental leaves: the total number of employees who were still on parental leaves in 2016.
3. The number of employees pending on returning to work after parental leave in 2016: the total number of employees applying for parental leave in 2015-2016 – the number of employees applying for returning to duties in 2014 and 2015.

Retirement Benefits

Employees' retirement requests are processed according to "Chunghwa Telecom Employee Retirement Pension and Separation Guidelines," the "Labor Standards Act," and the "Labor Pension Act."

- **Labor Standards Act:** The Company makes monthly pension contributions up to 15% of employees' monthly salaries to the pension fund. This fund is held under the supervision of Labor Pension Supervisory Committee. The current balance of the pension fund account is NT\$ 33.7 billion.
- **Labor Pension Act:** The Company makes monthly contributions of no less than 6% of employees' monthly salary. These contributions are deposited into employees' pension accounts held under the Bureau of Labor Insurance, Ministry of Labor according to the Contribution Rate Sheet approved by the Executive Yuan.

To help employees adapt to life after retirement, the Telecommunication Training Institute was invited to organize a series of "Retiree Adaptation Course." A total of 6 sessions were organized in 2016 to 189 audiences. Furthermore, donations totaling NT\$ 4.5 million were made to "Chunghwa Telecom Retirees Association" for various activities, while another NT\$ 1.5 million was donated to the organization of travel events, and NT\$ 300,000 were donated to organize Chinese New Year banquet for volunteers.

To help to adapt the transfer of experience, we have established a set of "Consultant Recruitment Guidelines" to engage retired employees in our growth continually. Consultants are distinguished between paid roles and honorary roles. Executive vice presidents and above and heads of first-grade institutions may be hired by Chunghwa Telecom as paid consultants after retirement. Paid consultants shall serve a term no longer than one year, and will be converted into honorary roles from the day after the one-year expiry.

Develop Paid Volunteer

Since 1985, Chunghwa Telecom and its branch offices have initiated social responsibility programs such as "New Hope Project," "Love and Dedication Group," "Changhua Coal Team," "Computer Program in Shanlin Tzu Chi Love Create Community, Kaohsiung City" to help those who need help. Chunghwa Telecom fully supports the initiatives proposed by its employees. In November 2007, Chunghwa Telecom completed the first corporate volunteer guideline and plan based on The Volunteer Service Act, provided paid volunteer leaves and volunteer training courses. We also assisted our employees to obtain Volunteer Handbooks from Ministry of Interior to ensure that the rights of those who accept service are protected, and to encourage its employees to take the initiative to propose and participate in the social activities.





Green Enterprise



Environmental Sustainability Management

Although telecommunication 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 “Environmental Sustainability 5-year Plan (2016~2020)” that outlines our overall strategy and roadmap for sustainable development in 2016 . In addition, budgets will be provided in each year to support action plans.

Follow environmental regulations and promote self-regulated environmentalism

Develop green products and support green economy

Improve energy efficiency to implement energy conservation and carbon reduction

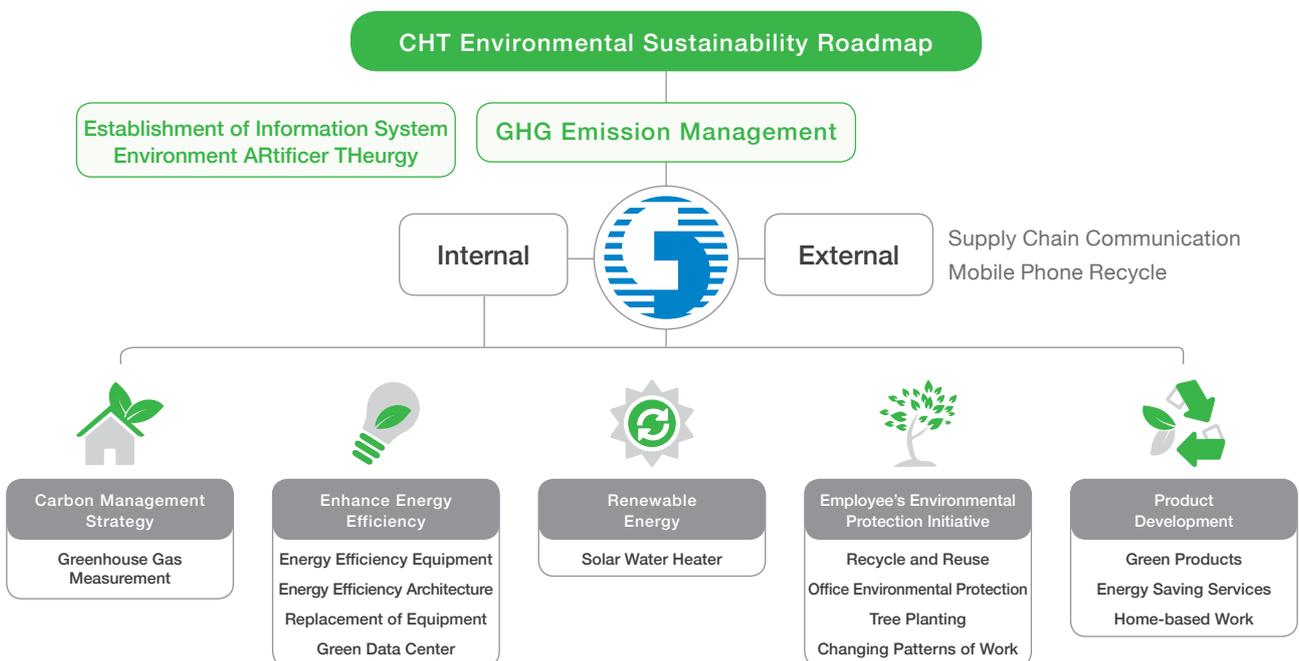
Environmental Sustainability Policy

Enhance ecological environment and construct green buildings

Use green energy and employ green purchases

Apply waste reduction and recycling to build a sustainable environment





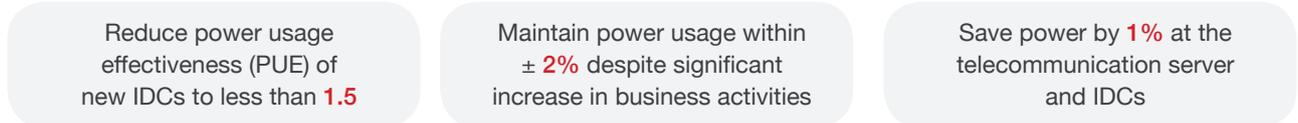
Environmental Sustainability Strategy

To fulfill our commitment towards “environmental protection,” we have created an “Environmental Sustainability Team” under the “CSR Committee” that specializes in determining short, medium and long-term goals. The team exists to make sure that issues such as energy conservation, carbon reduction, and environmental protection are addressed in the operational plans, and to set codes of conduct, manuals, standards and targets for green energy and greenhouse gas.

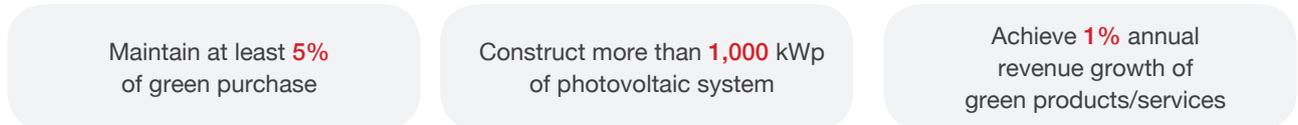
To fulfill our green commitment and embrace the world’s green challenge, Chunghwa Telecom has adopted a “Green Enterprise, Sustainability and Innovation Strategy” with the introduction of 5G (Green) initiatives: “Green Energy, Green Procurement, Green Operations, Green Stores, and Green Supply Chain”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



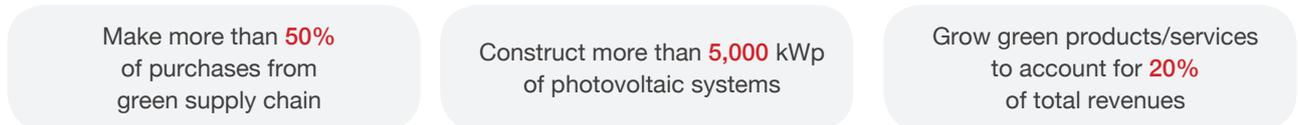
▼
Short-term Goals



▼
Mid-term Goals



▼
Long-term Goals



Green Operations

Chunghwa Telecom has set our goal to become a sustainable “Green enterprise,” and thus incorporates environmental issues as 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 environmental friendly products and services, we are confident of our potential to inspire a new generation of low-carbon industries.

Environment ARtificer THeurgy

To manage resources and environmental protection more efficiently, we developed Environment ARtificer THeurgy (EARTH) system in 2008 to save the spending on energy consumption and enhance environmental management efficiency.

EARTH system features:

Energy Saving and Innovation:

Energy savings and innovation initiatives uploaded by 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; currently, there are more than **58,645** electricity number and **2.32** million electricity payment data under management.

Water Management:

Request centralized payment of electricity bill; currently, there are more than **1,279** electricity number and **91,254** electricity payment data under management.

Carbon Emission Management:

Provide carbon verification form and the results largely enhanced as **300** man-day operations.

Fuel Management:

Analyzed the fuel data of hybrid vehicles and ordinary vehicles, to reach energy efficiency and carbon reduction.

Corporate Tree Planting:

Document type, number, management department and location of trees. Currently, there are over **67,236** trees data saved in EARTH database.

Recycling Management:

Document type, number and management department of recycling objects. We have recorded **22** recycling types and **14,607,614** entries.

100% ISO 14001 Certification in All Service Locations

All of Chunghwa Telecom’s business locations have been certified for environmental management system. In other words, Chunghwa Telecom generates 100% of its revenues from environmental management system-certified service locations.

In terms of energy management, we are the first telecommunication company among local peers to fully implement ISO 50001-Energy Management System.

The Data Communications Business Group, Chunghwa Telecom Laboratories, Mobile Business Group (including offices, data centers and base stations located in Taipei, Taichung and Kaohsiung), International Business Group, Northern Taiwan Business Group (Taoyuan Office) and Southern Taiwan Business Group (Kaohsiung Office) have all been certified as of the end of 2016.

Cloud-based E-invoice

Chunghwa Telecom’s cloud-based e-invoice service allows corporate customers to store invoices permanently in digital form on a cloud server for ease of filing. Meanwhile, printed copy of the digital invoice has been downsized to no larger than 5*8 cm, and only one sheet of paper is printed regardless of the number of items purchased. As a result, the amount of pulp used has been reduced to somewhere between 1/3 and 1/4, which effectively reduces costs for businesses.

A business that prints 3.8 million sheets of digital invoice per month would be able to save 4,600 trees a year, and given the average carbon absorption capacity of 10-20 kg per tree, the solution may reduce carbon by 90,000 kg a year. In 2016, Chunghwa Telecom had 283 customers using the digital invoice system, which generated annual revenues totaling NT\$ 51.4 million.



Green Environmental Hostels

Chunghwa Telecom Hostels provide accommodations for employees' business or leisure travel. In response to environmental protection and personal hygiene, the hostels do not provide disposal consumption goods and towels, and implement energy-saving measures such as solar water heater, air conditioning heat pump and LED lighting. 18 hostels had been certified as Environmental Friendly Accommodation in 2016.

In response to Hotel Carbon Measurement Initiative (HCMI 1.0) formulated by World Travel & Tourism Council (WTTC) and International Tourism Partnership (ITP), we introduced the "carbon footprint calculator of hotel rooms" in Siziwan hostel, along with the combination of iEN system to manage the use of facilities and electricity in the hostel. We also construct comprehensive power monitor and room management model to reach maximum energy and water saving efficiency.

	2014	2015	2016
Revenue (NT\$ million)	9.5	9.4	9.2
Carbon Emission (ton)	64,527	57,443	71,301
Electricity Usage (kWh)	123,853	110,256	135,040
Energy Intensity (t-CO ₂ /NT\$ thousand)	0.01	0.01	0.01

Report to Carbon Disclosure Project Annually

Launched by world's leading institutional investors, the Carbon Disclosure Project (CDP) began issuing a series of questionnaires in 2003 to learn about the risk management practices and responding measures that businesses have in place with regards to carbon issues. In response to global institutional investors' interests on how Chunghwa Telecom discloses and reduces carbon, we have chosen to adopt the World Cafe Method since 2010, and we are now the only Taiwanese telecommunication carrier to have consecutively participated in CDP. We actively discuss across departments and use the questionnaires to determine areas of improvement as well as reduction targets.

Environmental Management Expense

	2014	2015	2016
Environmental management expense (NT\$ thousand)	181,365	275,975	286,734
Accounted percentage of turnover	0.08	0.13	0.12





Green Energy

Given the changing climate and energy shortage, the Taiwanese government began the “National Energy Transformation Program” in 2016 that sought to bring new ideas on energy conservation, innovation, logistics, and intelligent systems. Solar energy is one of the key focuses of this program. Being the largest telecommunication carrier in Taiwan, Chunghwa Telecom recognizes its duty to support government policies and has made energy and carbon reduction as part of daily practices, with strategies and goals set up to guide our actions. We are also taking count of proprietary buildings that would be suitable for the construction of solar power system; furthermore, new IDC servers are being constructed preferably using renewable energy.

Chunghwa Telecom has been applying its long-accumulated ICT background into the construction of solar power stations for many years. By the end of 2016, the Company had 42 solar power stations throughout Taiwan with a total rated capacity of 419 kWp. We aim to expand capacity to 500 kWp by the end of 2017, and at the same time assist government agencies and private businesses in the coordination of photovoltaic projects.

Target Low-carbon Industries and Promote Solar Energy

Chunghwa Telecom’s venture into the energy industry has 3 focuses: solar energy, LED road lamp, and wind power. In terms of solar power, Chunghwa Telecom completed the construction of solar power systems at “Chengkung Telecom Tower and Anping Database” in 2016. Both installations have been recognized as Exemplary Sites under “Tainan City Autonomous Regulation on Low-carbon City.” Both installations feature the use of Chunghwa Telecom’s intelligent energy system (iEN), which enables real-time monitoring/analysis of power capacity, conversion efficiency, and reporting of abnormalities.

Business model:

- Choose a suitable location for solar panel installation
- Choose an installation service provider
- Plan system capacity and engineering structure
- Sign contract to sell electricity to Taiwan Power Company once power generation commences

Benefits:

- Inject green electricity into Taiwan’s power system: The “Chengkung Site” has a rated capacity of **65.52** kWp and generates about **84,000** kWh per year; the “Anping Site” has a rated capacity of 43.68 kWp and generates about **56,000** kWh per year.
- The creation of SOP panels allows solar power systems to be modularized to the needs of government agencies and private businesses in the future.
- After deducting the cost of maintenance and equipment replacement, the solar power stations are expected to generate NT\$ 150,000 in net profit over 20 years, which is equivalent to 7.28% annual return on investment.

Short-term plan:

The Company will actively expand construction of solar power facilities, including proprietary and commissioned construction. The capacity of proprietary solar power plants is estimated to exceed **500** kWp in 2017 and will contribute more than NT\$ 1 billion in revenues.

No.1 in Green Power Procurement

Growing demand for telecom services has forced us to install additional equipment, which makes it rather difficult to control increases in the use of power. Nevertheless, we pursue different measures from the energy saving in our buildings as the starting point. Owing to a series of effective controls, we were able to reduce power consumption by 305 million kWh (30.05%) by the end of 2016, reducing greenhouse gas emissions by 161,040 t-CO₂e compared to 2007. This effective control of power usage was achieved through a combination of enhanced environmental sustainability management system and closer monitoring of telecommunication equipment power usage.

Driven by its care towards environmental sustainability, Chunghwa Telecom actively supports the government’s Green Power Purchasing System by purchasing 2 million kWh of green electricity in 2015 followed by another 4 million kWh in 2016. These purchases placed us the first in the ICT industry and the second nationwide, for which we won “Corporate Vision Award” from the Ministry of Economic Affairs. In the future, we shall carry on our determination in promoting renewable energy source and assist the government in the creation of green energy economy, thereby contribute to a three-win concerning energy supply, industry development, and environmental protection.



Electricity Consumption Analysis

Year	Total Electricity Consumption (A)	General Consumption (B)	Business Consumption-Meter Rate Lighting Service (C)	Business Consumption-Flat Rate Lighting Service (D)	Business Consumption Increment (E)	Business Consumption Increment Rate (F)
2007	135,180	9,420	125,151	609	NA	NA
2012	139,272	8,912	124,166	6,194	1,977	1.42%
2013	142,580	8,835	127,023	6,722	3,385	2.37%
2014	142,216	8,873	126,128	7,215	-402	-0.28%
2015	142,092	8,571	125,740	7,781	178	0.13%
2016	140,438	109,590	24,980	5,867	-	-

Note. 1. The method of calculation was modified in 2016 to more efficiently present power usage. This modification resulted in a significant change in data under columns B-F, but total power usage had actually decreased compared to the previous year.

2. Data under columns E and F in 2016 will be presented in 2017 instead due to adjustment of calculation and different basis of comparison.

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

Energy Saving for Data Center

Chunghwa Telecom places great emphasis on the energy efficiency of our data centers, and is currently implementing energy conservation measures on telecommunication data centers (including IDCs). The Ankang Data Center, for example, obtained its green certification in 2013, while the cloud data center located in Banqiao was also certified for green building in 2016. All future data centers will be featuring our proprietary iEN smart energy management system, which is our scientific approach towards reducing energy, carbon and thereby protecting the environment. Energy conservation measures for telecommunication data centers include:

 Air-conditioning Improvement	<ul style="list-style-type: none"> • Change airspeed, remove vent pipes, or disable small air-conditioner to be compatible with new equipment. • Use high sensible heat packaged when replacing air-conditioner in annual replacement plan. • Isolate the air-conditioning area of air-conditioner placement to avoid unnecessary air-conditioning usage. • Install VFD (Variable Frequency Drive) of temperature controllers on cooling water tower fan units and water pumps. • Promote applications of outdoor air systems for the data center, which largely reduce electricity usage in spring, autumn and winter.
 Energy Management	<ul style="list-style-type: none"> • Monitor air-conditioning temperature, designate personnel to maintain adequate temperature in different areas. • The cooling tower fan unit is unloaded (by change speed) according to the water temperature. • The ventilation type of heat dissipating should be employed for the lighter load facilities such as the base sites, telecommunication rooms and power distributing equipment. • Introduce renewable energy system such as solar power generation system.
 Energy Management Equipment Consolidation	<ul style="list-style-type: none"> • Cut off disabled equipment and replace worn energy-consumption equipment after the consolidation of mobile base stations, digital switching equipment, transmission equipment, broadband equipment and power supply equipment. • Consolidate equipment and isolate unused space to reduce energy consumption.

Electricity Consumption of IDCs

Year	2012	2013	2014	2015	2016
Power usage (10,000 kWh)	13,794	14,620	14,700	14,539	15,210

The Most Environment-friendly IDC in Greater China Region

Chunghwa Telecom’s Banqiao IDC, the first international data center in the Greater China Region to be certified for “Rated 4,” officially commenced operation in 2016. The IDC offers space for 4,000 server racks, and provides the most stable, fastest and highest quality ICT service in Taiwan and Asia Pacific. Its presence contributes significantly to industries such as banking, securities, ICT, digital contents, e-commerce, etc., and has the potential to globalize Taiwan’s cloud services.

Environmental Features:

- Incorporating Chunghwa Telecom’s proprietary iEN smart energy management system for automatic environmental monitoring.
- Energy efficiency is measured using the “The Green Grid” standards, and is targeted to achieve a high energy efficiency of PUE 1.5 and below.
- Rated LEED Gold and obtained Green Building and Smart Building certification in Taiwan.



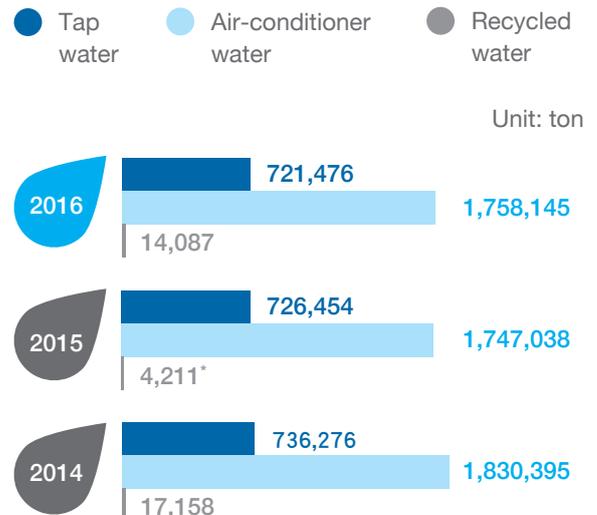
In the future, we will continue applying energy-saving services and products onto old buildings for smarter lifestyle applications, and contribute to green building in addition to our support for IoT, big data and cloud services in Taiwan.

Note: It is a telecommunication infrastructure standard developed by Telecommunications Industry Association (TIA) in the United States. The standard covers four main aspects (telecommunication, building, power, and machinery) and includes more than 2,000 criteria. Each subject is rated into different levels of robustness, from Rated 1 (least robust) to Rated 4 (most robust).

Water Resources Management

Water usage at Chunghwa Telecom is mostly for domestic purpose. 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 recovery of rainwater and cooling water.

We have identified water resources as part of our management focus, and introduced many initiatives to improve water efficiencies, such as water conservation measures, centralized water bill management, and water-saving goals. Apart from adding a new water leakage detection feature, we have also incorporated water usage monitoring into our environmental sustainability system. Data collected from these two functions are analyzed and managed. Other conservation measures such as recycling and reuse of rainwater and domestic effluents are also being implemented on an on-going basis.



Note: The amount of water in 2015 had reduced significantly due to severe drought, which was believed to have been caused by climate change.

The Plan and Objective of Water Resources Management

Currently, Chunghwa Telecom’s annual business growth is 2%; therefore, we benchmarking 2012 water usage standard, control the annual growth of water usage to no more than 2% and promote water-saving measures accordingly, including:

- Install sink faucet sprayer to reduce water waste.
- Replace toilets with dual-flush toilets to reduce flushing water.
- Recycle rainwater for office plants watering.
- Encourage the installation of water reclamation equipment in new buildings, so that the treated sewage water can be reused for non-potable and physical separated uses after reaching certain water quality standard.



Recycling of Water Resource

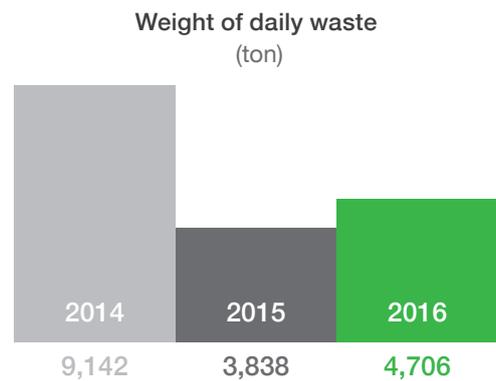
Started from 2007, Chunghwa Telecom initiated water conservation measures by including water resources management into EARTH system, while registering centralized water bill payment through EARTH's "water bill management" function to reduce printing of water bills. Through the information interface, managers can search, generate trend charts and report forms, provide exception reports to avoid mistakes in billing and meter reading. Managers can also review the situation of water uses, reduce expenses in water, and improve the efficiency of management.

We have scheduled a five-year plan to enhance the effectiveness of water recycling and reuse. In the plan, we are expected to establish underground raft foundation water collection systems to collect clean rainwater from rooftops and the ground. Meanwhile, we also initiated recycle of the cool-condensed water project for office air-conditioners. The recycling water will be reused for watering plants and cleaning the sidewalks.

Waste Management

Understanding the importance of resources reduction, recycle and reuse, Chunghwa Telecom combined our five-year environmental sustainability development plan and EARTH system to manage the use of resources and control energy efficiency, while conducting systematic management on recycled and waste treatment.

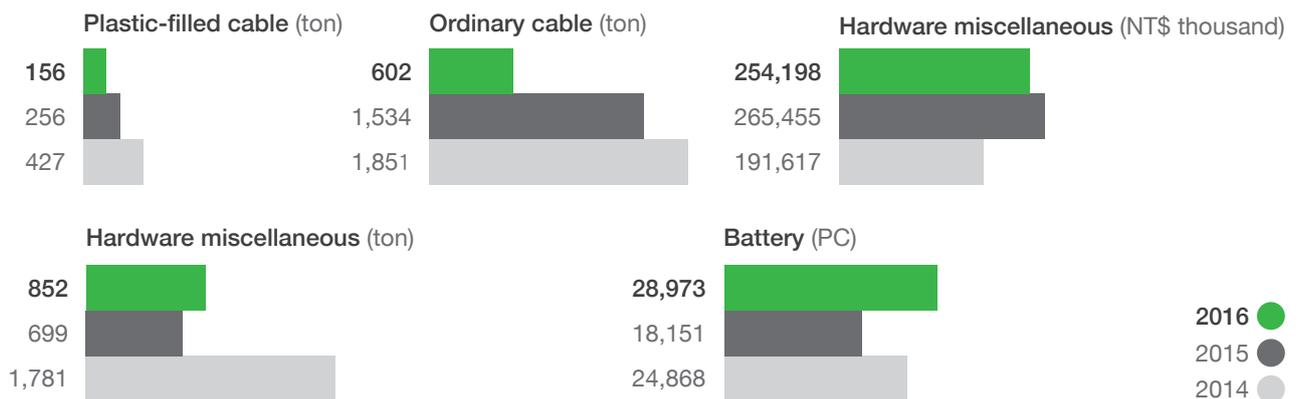
Chunghwa Telecom designated professional waste treatment company to transport our daily waste to landfills or incinerator for necessary treatment. For recyclable waste, the contracting cleaning company is designated for the classification and disposal treatment.



Industrial Waste

The scrapped lead-acid battery is a recyclable industrial waste regulated by the EPA. To reduce pollution, toxic substance and waste disposal is joint responsibility for the business organizations. In this regard, the recycling and disposal operations are outsourced by joint contract based 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.

All the lead-acid batteries scrapped by each business unit are auctioned on site, and proper documents for their disposal are filed for audit tracking. There were 21,781 scrapped lead-acid batteries, sold for NT\$ 18,177 thousand with a total weight of 1,208,580 kg disposed in 2016. The public and private waste clearance and disposal organizations recognized by environmental institutions are designated to handle the treatment of other industrial waste such as cable and hardware miscellaneous.



Chunghwa Telecom prides itself as a highly-localized telecommunications carrier, a contributor to community development, and one of the most important partners to telecommunication carriers around the world. As technologies progress, we began to operate outside the conventional telecommunication boundaries and gradually incorporated corporate social responsibility concepts into product/service research, development, and application, and into the Company's management strategies. For details regarding green products, please refer to p.52-53.

In addition to developing products that are friendly to the environment, we have actively been promoting Green Stores and was the first company in Taiwan to turn service outlets into Green Stores. We expect to convert all 406 service centers into Green Stores by 2017, and sell more than 3 environmental/energy certified products. Information on future service outlets can be found at the "Green Stores" section of the website of the Environmental Protection Administration, Executive Yuan.

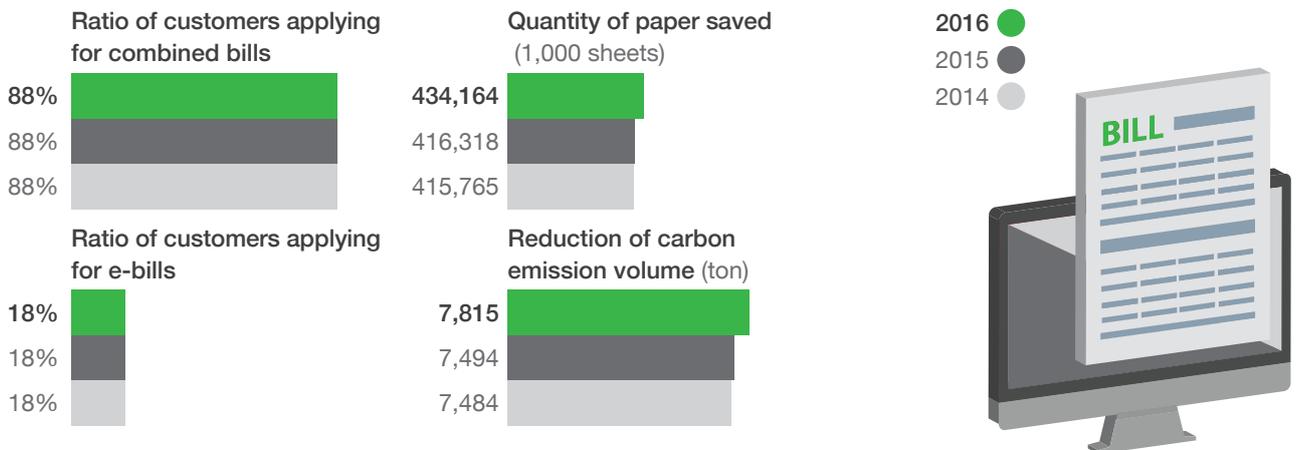
Cross-industry Alliance and Low-carbon Transportation

Chunghwa Telecom actively expands product diversity by utilizing its distribution advantage and forming alliances with partners from different industries. In view of rising environmental awareness and green energy trends, the Company has worked with China Motors since 2016 to sell e-Moving, a two-wheel vehicle, at all direct branches throughout Taiwan (excluding offshore islands). It shows our dedication to supporting low-carbon vehicles with actions.

One of the most significant features about e-Moving is the simple charging solution. The biggest advantage it offers is energy efficiency, which has been well-recognized by the Chiayi Forest Bureau and courier companies. Due to the simplicity of its parts and design, e-Moving only requires changing of gear lubricants and costs only one-fifth the amount required to maintain a gasoline-powered motorcycle. Through its sales and service system, Chunghwa Telecom hopes to promote the use of green transportation and build a sustainable environment with the assistance of allied business partners.

Merger of Electronic Bills

Since 2001, we have been combining customers' bills and mailing multiple bills from the same address in one envelope, which not only makes billing easier for customers but also helps protect the environment. The Company introduced electronic bills in 2005, saving 420 million sheets of paper each year and was estimated to have saved 38,027 trees, as 7,529 tons of carbon by the end of 2016. It was a good example of how the Company had satisfied customers' needs while at the same time contributed to the mitigation of global warming.



- Note:1. From 2014 onward, the calculation is based on the quantity of paper saved and reduction of carbon emissions after using e-Bills and combined bills.
2. Each electronic or combined bill saves 2.5 sheets of A4 paper on printing and envelope. Total amount of paper saved: 14,472,159 records * 12 months * 2.5 = 434,164 thousand sheets of paper.
3. One sheet of A4 paper generates 18 grams of CO₂; the amount of carbon emission reduced: 434,164,000 sheets * 18 grams CO₂ = 7,815 tons CO₂.



Green Supply Chain

“Green of ICT and Green by ICT” are Chunghwa Telecom’s responsibilities and missions as the leader in the telecommunication industry.

The trend towards green enterprises is contributed by 2 forces: “market and non-market.” The non-market forces come from government regulations, whereas market forces come from supplier management. To co-exist with the environment, businesses must implement “green practices” throughout the entire supply chain. Chunghwa Telecom has been implementing related measures since 2008, and at the end of 2016, we introduced our proprietary green product label and invited every supplier to apply for certification, so that we may ensure the use of energy-saving or green energy products throughout the supply chain, from raw materials, production to packaging.

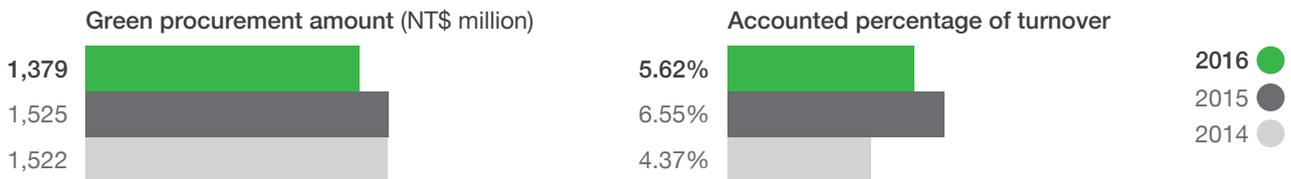
The concept of a green supply chain is a win-win solution for businesses and suppliers, because it has the potential to increase revenues (financial advantage) and at the same time minimize risks and impacts on the environment (non-financial advantage). In the future, a green supply chain will be more than just having suppliers commit to environmental protection and introduce green products. Chunghwa Telecom will continue exploring value-added applications of ICT, and introduce robust systems to facilitate coordination, management and complete monitoring of its supply chain.

Note: For information on supply chain management, please refer to p.44-49

Green Procurement

Chunghwa Telecom supports the government’s policies and makes budgets on an annual basis to purchase green products that are either environmental-certified (less polluting, recyclable, resource-saving or green materials) or self-declared to be of less environmental impact throughout the product lifecycle (from raw materials to disposal). The Company also actively participates in green procurement programs and activities in the hope of inspiring green purchases among the industry and the public.

Our goals and policies concerning green procurement have been explained in detail in the five-year plan mentioned above. 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.



Environmental Performance in 2016

 <p>Environmental Information Disclosures</p>	<p>In addition to publishing CSR reports and responding to DJSI annually, we have also been performing the following as part of our transparent disclosures:</p> <ul style="list-style-type: none"> • Obtain ISO 14064 verifications and certifications. • Respond to the annual Carbon Disclosure Project (CDP) questionnaire. • Respond to the Common Wealth Magazine and Global View Magazine questionnaires.
 <p>Improve Energy Use Efficiency</p>	<ul style="list-style-type: none"> • Integrate data centers: merge and exploit data center spaces. • Save cooling energy: had completed energy saving inverter module of 5,922 HP, high sensible heat air conditioner of 31,865 RT, 8,097 high-efficiency air conditioners, 2,528 RT ventilation air conditioner and 551 natural ventilation air conditioners at the end of 2016. • Green buildings and hostels: use green materials for newly constructed data centers or buildings. • Solar water heaters: install solar water heaters in Telecommunications Hostels. • Water resource recycling: set up rainwater, underground, and condensed cooling water recycling systems. • Environment-friendly LED bulbs: set up an internal trial plan for office buildings.
 <p>Implement Green Energy</p>	<ul style="list-style-type: none"> • Photovoltaic system: a total capacity of 419 kWp at the end of 2016. • Wind power: a total capacity of 17.6 kW in 2016. • Voluntarily supported MOEA's green energy trial program by purchasing 4 million kWh of green power in 2016, the first in the ICT industry and the second nationwide.
 <p>Autonomous Environmental Protection</p>	<ul style="list-style-type: none"> • Vehicle energy conservation and carbon reductions: replace old vehicles with environment-friendly, and use electric vehicles for trial. • Green transportation: sponsored NT\$ 1.85 million for the construction of the Youbike station at the corner of Xinyi Road and Hangzhou South Road. • Clean homes, energy-saving office, health management systems, car-free days, and paperless ODAS. • Taiwan Energy Conservation Patrol: focus on increasing energy efficiency within small and medium enterprises and vulnerability of social institutions. • Industrial waste recycling: set waste reduction and recycling goals.
 <p>Value-added Products and Services</p>	<ul style="list-style-type: none"> • Electronic billing: features environmental protection, promote with marketing section. • Electronic invoice: invoice data were treated for cloud storage permanently for saving of materials, human resources, and the preferential tax treatment as incentive and exemption from fines by the government. • Promote iEN and other energy-saving categories. • Mobile device recycling: recycle bins are available at service centers in line with the promotion of waste recycling. • Green Stores: Aims to transform 406 service centers nationwide into "Green Stores" in 2017, and sell 3 or more environmental-certified products. • Assist suppliers in applying for eco-friendly product labels.





Social Harmony



● Digital Inclusion

Connect · Hope · Technology

Chunghwa Telecom expects to create an environment without boundary of technology and information telecom technologies. Hence the inheritance of culture, the extension of education, the promotion of industry and upgrades of arts and intellectual can connect in the universe of the Internet, creating infinite hope. The digital technology can be beneficial to everyone despite their age, social standing, geographical location, and education.

Based on the characteristics of ICT industry and the spirit of “value is where the responsibility lies,” Chunghwa Telecom penetrates into the communities in Taiwan. With the objective of “shorten the digital divide and create digital opportunities,” Chunghwa Telecom observes the trend of digital divide and put forward solutions to facilitate social innovations and digital inclusions.



Subject	Strategy	Assessment
 Persons with Disabilities	Help disabilities and economically disadvantaged persons to use telecom services through ICT technology and favorable rates; develop ICT equipment and provide the same to the disabilities thereby improve their quality of life, education and job opportunities. In addition, with the development of ICT services, we also assist in improving the quality of life of people with chronicle diseases and aged people who need special care.	Trouble-free communication use, life quality of life improvement, disadvantaged group employment, social changes in the community, and the enhancement of the corporate image.
 Low-income Earners	In addition to providing favorable rates to disadvantaged groups, we also install ICT equipment for remote and disadvantaged communities.	Easy to use, affordable rates, life quality improvement, social change inside communities, equipment utilization, revenue, and the enhancement of the corporate image.
 General Public	Provide learning opportunities through sufficient and comprehensive educational programs. We help users to utilize ICT services, smart communication equipment, and value-added service through mobile devices, our network and branch offices.	Course integrity, service courses for attentive customers, course utilization, revenues, social changes in community, and the enhancement of the corporate image.
 Remote Areas	Despite the geographical location, distance or outlying islands, ICT service shall not have any boundary. Chungghwa Telecom never ceases to ensure the connectivity of communications. In addition to establishing dual-route in remote areas, we also use satellites to improve the communication quality in the mountain area and outlying islands.	Basic communications coverage, high-speed wireless broadband coverage, guarantees of the smooth communications, improvement of users' quality of life, equipment utilization, revenues, the enhancement of the corporate image, social changes in the communities and the environment.

Social Investment Management

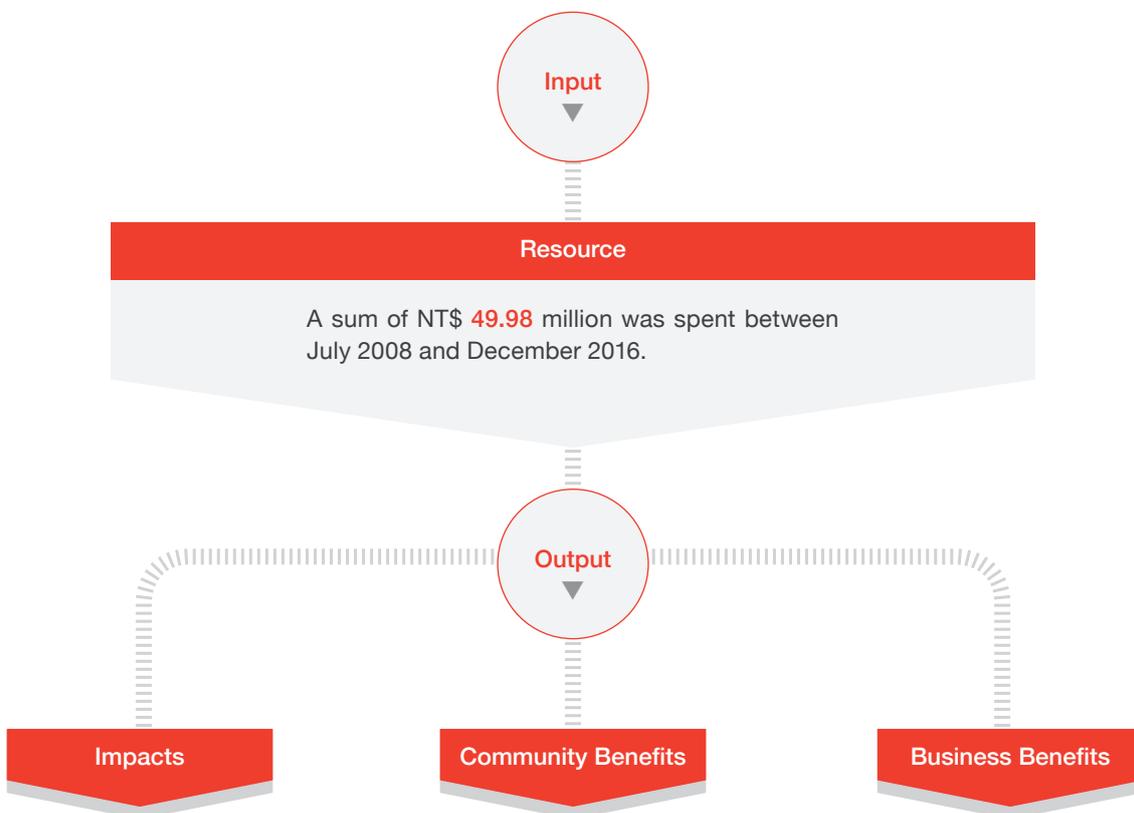
Chunghwa Telecom believes “taking from the society and contributing back to the society.” Being the largest telecom carrier in Taiwan, our provided network and services throughout Taiwan and remote islands have shaped our self-demanding of contributing to the society. Over the years, by exerting our core competence, we continue to create value for society and help society overall to improve quality of life.

Quantification of Contribution of Social Investment

By referencing the community investment evaluation mechanism of LBG (London Benchmark Group), Chunghwa Telecom conducts evaluations on the possible community benefits and business benefits before the social investment is made. The quantification of the contribution of social investment allows us to make reasonable resources allocation, while avoiding repetition. It helps our decision-making and promotion of charities or sponsor activities in the future.

The Result of Corporate Social Responsibility

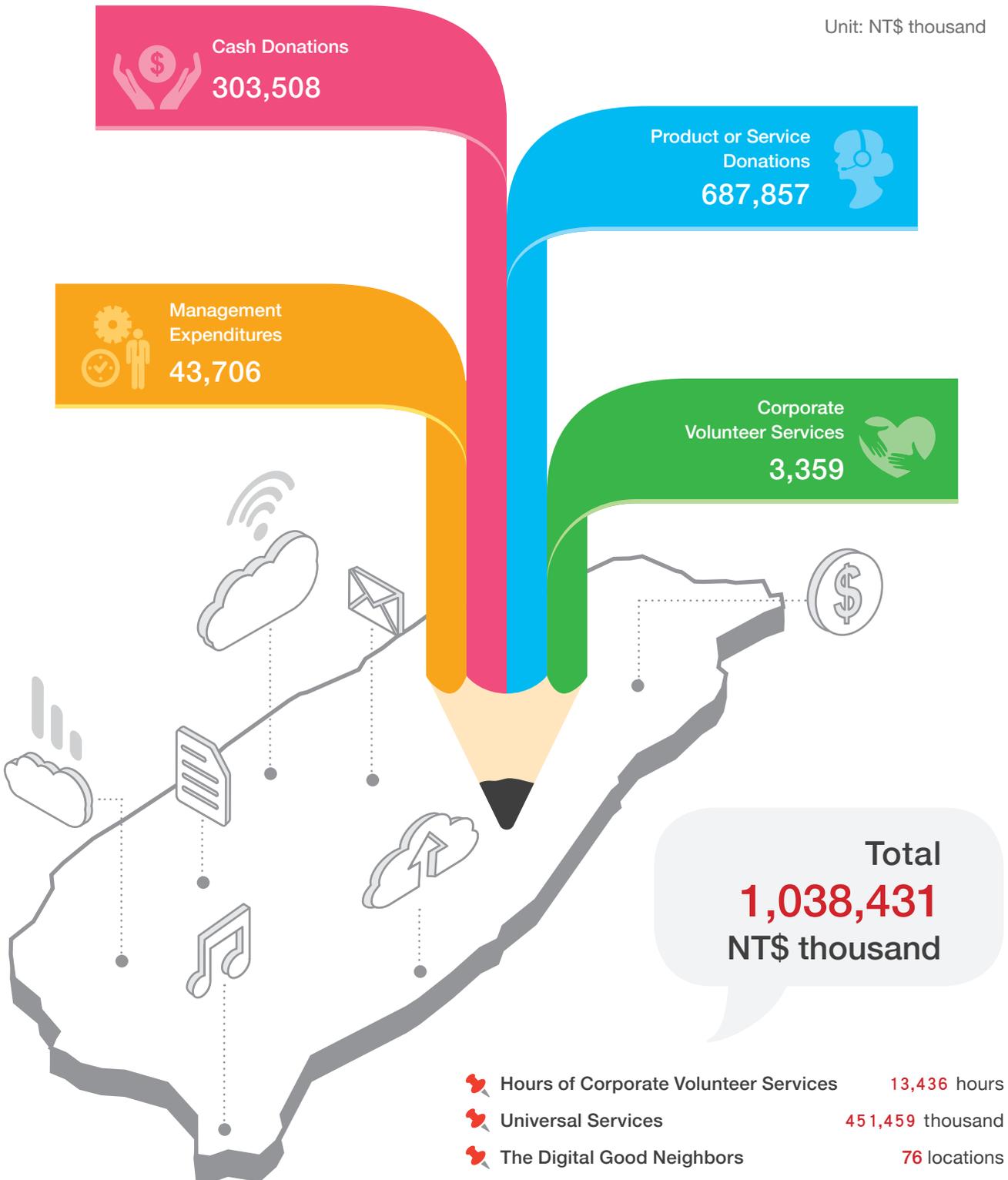
Cooperated with Fu Jen University- Rural Villages Network Tutoring Program



- The first company in ICT industry to establish collaboration relationship with a university, combining industry and academic resources to solve long distance tutoring in remote areas.
- Exerting the core competence of communication and corporate advantage of the “everyone’s neighbor” in the community, to help remote schools solve computer maintenance and communication issues.
- Exerting corporate core competence, implement the corporate social commitment of “shorten digital divide” and “create digital learning opportunities.”
- Fulfill the duty of “everyone’s neighbor” to shorten the distance between urban and rural areas through communication technology, and convey warmth to people.
- The deepening care helps to open up the dialogue with stakeholders, and establish the corporate image in welfare project.
- Combine social resources and minimize the gap of manpower in corporate social welfare.

Social Investment

In the era of technological advancement, the “digital divide” has triggered inequality in education and employment opportunity. Chunghwa Telecom focuses its social investment in “narrowing the digital divide” and “creation of digital opportunities,” given the specific nature and the core competence of data communication of the ICT industry. In addition, we also spare no effort in the advocacy of “corporate volunteers” to participate in community services, and proactively assist the communities in creating digital opportunities.



Note: Calculation for service availability has been adjusted to: “current year net cost” + “amount allocated from the previous year” - “amount approved in the previous year” since 2015 to more appropriately present the cost-effectiveness of social investments.

● Create Digital Opportunities

By utilizing our expertise in telecom technology, we hope that everyone shares the advantage of technology despite his or her wealth, social status or geographical location, thereby achieving the objective of shortening digital divide and creating digital opportunities. We also contributed resources to developing products and services to meet the needs of the disabled to realize their rights of enjoying the universe of digital technologies.

■ Telecommunications Universal Service

In 2016, Chunghwa Telecom has established 20 sites for accessibility to telecommunication services in supporting the government for protecting the fundamental rights of the people in communication with concrete actions.

Beneficiaries of Services

- 84 rural communities in Taiwan.
- Telephone service for more than 240,000 households.
- Data communication service for more than 100,000 households.
- More than 58,000 public telephones were set across 22 counties/cities.
- Data connection service for more than 500 high schools, primary schools, and public libraries.



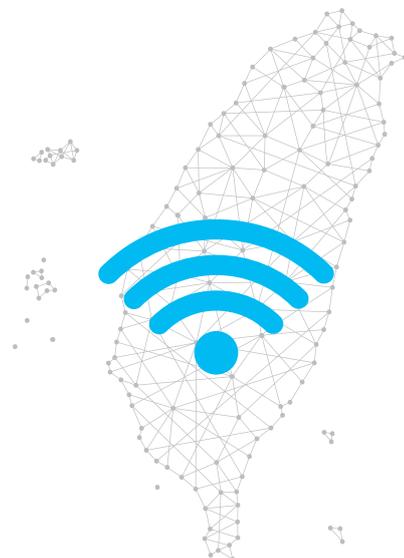
Obstacles

- The topography of different rural zones varies significantly and takes time to reach, which makes the maintenance of the telecommunication systems difficult.
- There is a higher probability that natural disasters will cause damage to the telecommunication facilities, and the cost of maintenance will not be lower than the cost of installation.

📎 Total 4G Coverage

Chunghwa Telecom has been active in the construction of 4G base stations throughout all 22 counties/cities and 368 administrative districts in Taiwan, including the offshore islands (Penghu, Kinmen, etc.), mountains, and remote areas. It has the broadest 4G service compared to local ICT peers and was the first to achieve “total 4G coverage in all towns.”

In 2016, Chunghwa Telecom continued expanding service coverage by constructing 900/1800/2600MHz base stations throughout Taiwan, and introducing additional data capacity and tri-band carrier aggregation (CA) to metropolitan areas so that people may enjoy the fastest 4G service available. By doing so, we fulfill our corporate social responsibilities and live up to our reputation as the pioneer in technology development.



Read with You - Community Network Tutoring

Chunghwa Telecom has supported the education and showed its concerns for the rural villages since 2009, after the turmoil left behind by Typhoon Morakot. We extend our service to the permanent settlement and newly developed communities in the disaster zones. Through the installation of the visual technology of the Internet, we delivered the educational resources in the form of private tutorships to rural villages and the unfortunates. We hope to give the children of the next generation a learning environment with “safety, dignity, and hope.”

Characteristic	By online education, the university students assist the pupils of junior high schools and primary schools in the rural villages in enhancing their learning effects to prompt the equal opportunity for learning.
Method	To realize the spirit of stakeholder engagement, we have cooperated with Fu Jen University for online education. The university students were called to the cause with one-to-one tutoring to take care of the school children in the rural villages and the disaster zones.
Participant	Chin Lun Hot Spring Tribe in Taitung, Galan Community at Taitung, Pingtung Sunshine Tutoring Association, Pingtung Feng Lin Church, Pingtung Chao Chou Boys Town, Kaohsiung Liu Kuei Catholic Church, Kaohsiung Shan Lin Tzuchi Park, Chiayi Fu Jen High School, Yilan Toucheng Catholic Church, Orchid Island High School and Matzu High School.
Major Result	<ul style="list-style-type: none"> The Ministry of Education organized the “Integrated Learning” event and invited participants of Chunghwa Telecom’s long-distance tuition aid program and the ministry’s e-Tutor partners, comprising of elementary/junior high school students and teachers, to interact face-to-face. Following an exhibition of e-Tutor’s “Ten-year Accomplishment,” Chunghwa Telecom was awarded by the Ministry of Education for “Long-term Support of Digital Solutions.”



Note: The data period started on 2009.12.01 and ended on 2017.01.31.

The Senior Citizens App



“Senior Citizens App” was the first application developed by Chunghwa Telecom and Institute for Information Industry that specializes in addressing the needs of the elderly population. The App contains useful features including phone assistance, contact list, caller announcement, weather inquiry, health reminder, emergency contact, photo sharing, and video streaming. Through this App, we hope to make smartphones and tablet PCs more user-friendly to elders and thus narrow the digital divide. The App received 4,046 downloads by the end of 2016.

Results Achieved

The video broadcast function has been completed, which enables senior citizens to indulge themselves in classical music over 4G. This music broadcast service is accessed approximately 3,000 times. The first video broadcast launched in 2016 featured a concert organized by Market Intelligence & Consulting Institute performed by Taipei Philharmonic Orchestra. Senior, senior citizens were treated to a world-class, theater-like classical music performance of “Salute to Taiwan with our 4G service.”

Future Target

Complete the iOS version of the Senior Assistant App with push notification function added to remind users of video broadcasts, news, software updates, self-development and health information.

The Voice-Based Personal Assistance App for the Visually Impaired



We believe humanity to be the foundation of technology innovations. 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 the visually impaired and elders conquering many difficulties they encounter in life. By the end of 2016, the app received 15,373 downloads, making it one of the most convenient and useful personal assistant to the visually impaired.

Results Achieved

Completed development of cloud-based image recognition technology, which helps visually impaired people recognize objects, texts, faces and landmarks through the use of a smartphone. Furthermore, by integrating the online broadcast features of National Education Radio, the Company can provide visually impaired persons with broader means of mobile learning, and help them solve problems encountered in life and improve their quality of life effectively.

Future Target

A 4G-based smart guidance feature will be added to bring live video assistance and Beacon assistance to the visually impaired. Using 4G live video assistance, volunteers can see for the visually impaired and help them resolve problems such as shopping and reading without having to be physically present. The app and volunteers’ assistance will enable visually impaired persons to experience the world in different ways.

Training of Volunteers for the Visually Impaired

Chunghwa Telecom worked with Suang Lien Foundation for the visually impaired to gather 200 secondhand iPhones. With the help of volunteers, these used iPhones were reset to factory settings and installed with VoiceOver, a software designed specifically for iPhones to assist visually impaired persons in communication.

In 2016, we recruited 57 volunteers to undergo the “Volunteer Training for iPhone Use by the Visually Impaired,” then organized 7 sessions of “iPhone Course for the Visually Impaired” and helped 120 visually impaired persons complete the course. The visually impaired persons who completed the training were given one used iPhone each, so that they may enjoy the convenience offered by smartphones.



Innovations Create Employment Opportunities

Chunghwa Telecom has engaged in long-term cooperation with the Resource Center for the Visually Impaired at Tamkang University, and has established the EYE Social Innovative Call Center in 2011. The joint effort led to the unveil of the first “Total solution” in Taiwan, including the research and development of the computer-assisted telephone system for the visually impaired, improvement and the training and supervision of talents and develop the skills of the phone customer service personnel in responding to the needs of the visually impaired.

- In 2015, the Company completed an upgrade for Taipei City’s 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, the verbal abuse referral feature, a call duration reminder, a health regulation inquiry feature, and a quick link to service sub-categories. These upgrades were made to improve the scope and efficiency of services delivered by the customer service personnel.
- By the end of 2016, the “Total Solution” had provided 8 satisfaction surveyors for Chunghwa Telecom and 15 customer service personnel for Taipei City’s 1999 hotline, who process more than 8,000 calls each month. One of the visually impaired surveyors had even passed the internal assessment and became the head of the customer phone service unit.

Automated Voice Donations

The automated voice donation system developed by Chunghwa Telecom Laboratories continues to prove helpful to charity, social welfare, cultural, educational, and environmental protection institutions, as it provides donors with a more convenient means of donations using cellphones, and has proven to raise more donations than conventional methods. Donors simply need to pick up their cellphones, dial the number and follow instructions as prompted by the voice system to contribute care to those in need. This service had raised NT\$ 10 million in donations in 2016.

QR Code-Charity Donations

In 2013, the Company introduced a QR code-based mobile payment service that allows users to make donations more conveniently simply by scanning the appropriate QR Code. This feature enables funds to be raised through multiple channels other than convenience stores and websites, while at the same time reduces the manual work. From its initial launch to the end of 2016, this service was used 496 times and raised NT\$ 280,000 in donations.



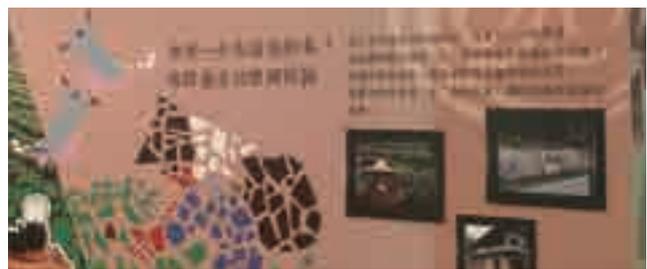
● The CHT Foundation

“Decade-long Dedication to the Locals”

In spring 2006, Chunghwa Telecom founded Chunghwa Telecom Foundation with the purpose of giving back to the society. Since then, the Foundation has visited locals in various parts of Taiwan and borne witness to their stories, linking non-profit organizations and inspiring creativities over existing cultures.

“The Foundation has long been rooted in the field of digital education. In the last decade, it has created 76 “Digital Communities“ throughout Taiwan and actively introduced new applications of digital technology to remote areas and the indigenous people. By bringing technologies into local communities, we hope to inspire cultural development and sustainable growth. For 10 years, we have organized various projects targeted at “communities,” such as digital learning, “Click Taiwan,” art towns, industry workshops, community trips, etc., to capture inspirational stories at all corners in Taiwan. In the future, Chunghwa Telecom Foundation will continue playing its role to establish communications and connections among people and attract more volunteers into helping the Foundation connect resource providers to those in need for a brighter future,” says San-Yuan Lin, the CEO of Chunghwa Telecom Foundation.

For the next decade, Chunghwa Telecom Foundation shall continue contributing to the sustainability of Taiwan’s communities, by utilizing its advantage in terms of digital technology, streaming service, culture and creativity. In 2016, the Foundation invited world-class director Cheng-Sheng Lin to direct a documentary for its Digital Community program. The title of the documentary, “Witness the Promising Future,” truly captured the Foundation’s care for the local communities, and inspired the imagination to the promising future. Through the documentary, the Foundation hopes to present the strength of Taiwan’s society, and bring the unknown stories of people living in the far corners of the country that the Foundation had uncovered over the last decade to the viewers.





 Videos of the events



Milestones

2016

Organized a short-film exhibition tour with the theme-“Our Stories” to showcase the stories of Taiwan, presented through video images by university students

2015

Held the “Local Beauty Exhibition”

2014

- Held the “Handicraft Exhibition”
- Launched the “Click Taiwan Young Talent Development Program” - Developing young people's concern for local affairs

2013

Held the first “Shared Happiness” seminar

2012

Launched the “Click Taiwan Photography Exhibition Campus Tour” to give young people the inspiration they need to exert charity influence in remote areas

2011

- Organized the “Chunghwa Telecom Women's Basketball Charity Tour” and the “Junior Basketball Summer Camp” as means to inspire charitable spirits and training new-generation basketball talents
- Launched the “Click Taiwan Portal” to promote local products

2010

- Launched the “Creative Reading Camp” and gave children in remote areas the privilege of reading cross platforms
- Launched the “Art Towns” program, bringing performance arts to suburban areas
- Launched the “Digital Learning Companion” program and assigned volunteers to guide children through their learning remotely

2009

- Commencement of the 1st “Click Taiwan” program
- Commenced the “Market of Love” project to help promote local businesses

2008

- Organized the “Spring Afternoon Feast” at the south village
- Launched a “Community Market” to support local businesses

2007

- Collaborated with the Tourism Bureau on the project “Travel Taiwan”
- Commencement of the 1st “Documentary 234” competition

2006

- Founding of Chunghwa Telecom Foundation
- Created the first “Digital Community” at The Presbyterian Church in Taiwan
- Organized a corporate gift exhibition

Digital Good Neighbors, New Cloud Vision

The CHT Foundation is conceived with the spirit of “responsibility” and dedicated to “narrowing the digital divide,” “creating digital opportunities,” “assisting local industries,” “cultivation of community life,” and “keeping local events on record” as the direction of its work. The foundation enters the communities from the cultural, industrial, living, and education aspects to share the growth with them.

The beauty of Taiwan lies in the 368 towns and districts that make up the nation. We believe each town and district is unique in its own way, which is why we respect the autonomy of our local offices and encourage them to take sustainable actions to the needs of residents. Due to resource constraints, it is our goal to maximize our influence by exploring needs first before committing resources.

Since 2006, the foundation has been utilizing the core advantages of Chunghwa Telecom to develop “Digital Community” throughout the nation including offshore islands. This program provides local communities with computer classrooms and open space of information to assist people who are willing but lack the resources to learn. Unlike one-time donations, “Digital Community” is a long-term program thoughtfully structured from early planning, equipment deployment, to maintenance.

Each Digital Community is assigned a different purpose; they may be designed to cater for children of disadvantaged families, or to develop local business activities, or to serve local religious organizations. We have accumulated abundant experience from our long-term engagement with the beneficiaries; for this reason, Chunghwa Telecom Foundation continues to organize Digital Communication Meeting on a regular basis to facilitate exchanges of experience between different project groups. The “Field Trip” in 2016 took participants to the “Manna Organic Culture Park,” a Digital Community located in Alisan, Chiayi, where they experienced the lives of locals through trips and workshops, and learned ways to improve the existing Digital Community program. By the end of 2016, we have established a total of 76 Digital Communities; our efforts will endure long into the future and become a part of the local communities.





Digital Community Conference

"Inspiration through the Efforts of Others"

"We traveled past a mountain and arrived at Alishan. Although we were not greeted by a clear sky full of stars, we did engage in an all-night discussion about community building and tribal education. I wish I had an extra pair of ears to take in what experts had to say about Digital Community."

- Nantou Digital Community

"Our willingness to change brings more opportunities and attracts young people back to hometown."

- Hualien Digital Community

"You have to learn to wait for people to catch up, so that you can support each other and travel further."

- Pingtung Digital Community

"Seeing a group of people trying to make their lives and the lives of others better is a powerful motivation."

- Taichung Digital Community

"It is inevitable that we encounter setbacks throughout the process, but as adults, the best example that we can set for children is not to give up easily."

- Taitung Digital Community

■ Youth Training Scheme

Youth Training Scheme is a program organized by Chunghwa Telecom Foundation and Department of Radio & Television of National Chengchi University that encourages young adults to make real changes in life, step outside of the comfort zone to experience different things, to learn about themselves and the environment they grow up in through a different perspective. During summer vacations, university students were invited to provide service for 15-20 days at various Digital Communities. They were encouraged to apply what they learned in the local community and at the same time capture local stories on camera.

The 8th "Youth Training Scheme" program received entries from 50 university students, who were assigned to perform services and capture stories at Digital Communities. These students came from different backgrounds, schools and departments, and had devoted themselves to community services by contributing their own specialties such as storytelling, graffiti arts, creative crafts, photography tutoring, cooking lesson, elderly exercise, event recording, journalism and editing class, weaving/dyeing assistance, translation assistance, tour assistance, tribal family photo-taking, remodeling of old houses, and life exploration courses. In the meantime, they captured real and motivating stories through cameras.

The purpose of this program is to share with the public on how the young people see and perceive the stories around them, and in turn motivate others to re-think their connections with the environment and contribute to the local communities. In addition to touring photography exhibitions through campus and expanding the influence to young people, the program has also been extending its reach to distinctive coffee shops in Taiwan and presenting their interesting stories through the camera since 2016. It was a way to inspire young people to observe and appreciate local culture up close. Next, the National Library of Public Information joined as a new tour destination, and the Foundation invited Principal Ching-Chen Chen of Chang Hu Junior High and Elementary School of Ecology, renowned children's book writer Arlene Hsing and world-renowned choreographer Bulareyaung to share their observations and opinions about the exhibition theme - "Our Stories." The event received overwhelming responses, and saw visitors leaving comments such as: "There are stories to be found every day in every corner of the world.....Every person who lives life to the fullest is truly extraordinary.....," "Thank you for showing the sincere hearts of people around us through the perspectives of others.....," "There are many exciting lives outside of the ones we live; thank you Click Taiwan for sharing the balance, purity, completeness, and meanings of life....."

Different Views from a Different Angle

Pei-Chun Kuo from Tamkang University Department of Mass Communication had just completed a junior entrepreneur camp prior to participating in Click Taiwan. She had troubles blending into the tribe of indigenous people, and could only observe the local sports games from a distance. She began to wonder that "perhaps Click Taiwan is not suitable for me." However, as the program progressed, she started to interact with the young locals and tried to dress up like them and joined them in songs and rituals. After experiencing their selfless and friendly culture, Kuo started to realize that "my purpose here is to record as much as I can." At the end of the program, she thought to herself *"I should be more grateful for what I have and desire less for things outside of my reach. I may even choose to become a culture worker so I can interact with people all the time. I find this type of work very meaningful."*

During the Click Taiwan program, Yuan-Yu Huang from National Taiwan University of Science and Technology Department of Construction Engineering joined her partners to accompany children of the community in learning the history of design, making clothes out of leaves, experiencing creative architecture, and joining the elders in conversation and meals. During the program, she often heard elders complaining about how lonely they felt, and started thinking about the things her grandfather once said, *"The thing I regret the most is not being able to live with you through your studies and work!"* That's when she realized that: *"I should do more than just holding a camera and seeing their lives through the lens; I want to feel their existences and truly capture the sense of company."* Technology can never replace the human touch. It is people who create stories and inspire emotions and motivations. Through Click Taiwan, Huang found the story that motivated her to capture the real moments in life, which she may inspire others to "feel, experience and think in introspection."



■ The First Step to Knowing Quality Farmers - Cloud Market's "Online Purchase, Offline Delivery"

The Foundation has long been dedicated to community care. In an attempt to increase the visibility of local businesses, the foundation once organized a series of events such as "Market of Love" and festive gifts fairs to help market local products. In 2016, the foundation introduced "Cloud Market," a platform that integrates virtual with physical distribution channels to provide tribal communities with broader means to sell their products. The platform also gives employees the opportunity to approach local businesses up close, and offer them the most direct encouragement and support through action.

The Cloud Market was created with 4 main features: "environmental friendliness, direct sale, supporting small farmers, and social enterprise." Partners of this platform consist mostly of the Foundation's long-time "Digital Communities." Products sold through Cloud Market include: high-altitude vegetables from Alishan (Chiayi), persimmon from Jianshi Township (Hsinchu), brown glutinous rice and vegetables from Pangcah Farm (Hualien), Qiansui Tofu Crackers made by Yunlin County Kouhu Township Senior Citizen's Association, pastries made by volunteers of social enterprise Love-Family-One (Sanchong District, New Taipei City), and processed agricultural products from social enterprise Xingfu Shijian (Gaoshu Township, Pingtung County). Every order sold through Cloud Market carries the dreams of its maker, and by linking to the outside world, the foundation helps make dreams come true.



■ 2016 Social Contribution of the Foundation

Item	Digital Learning	Digital Good Neighbor	Click Taiwan	Social Marketing	CHT Women's Basketball Team	Administrative Expense
NT\$ thousand	2,623	4,089	6,205	5,276	16,290	11,350



● Preferential Subsidies for the Disadvantaged Groups

Chunghwa Telecom has long been subsidizing telecommunication services for the socially disadvantaged, and assuring their accessibilities to basic communications:

Preferential Plan	Preferential Content	Preferential Amount	Persons Benefited
Public Phone Card Subsidy	<ul style="list-style-type: none"> A NT\$ 100 IC public phone card for each disadvantaged applicant. Provides 2 IC public phone cards for visually impaired each year. 	3,963	persons 2,078 NT\$ thousand
Caring Series Rate Plan	<ul style="list-style-type: none"> Double communication hours at original rate plan. 300 free SMS intra-network and 100 free SMS extra-network. 	-	9,782 NT\$ thousand
Broadband Preferential Plan for Low-income Households	<ul style="list-style-type: none"> 50% off on 16M/3M, 35M/6M, 60M/20M, 100M/40M and 100M/40M monthly rate. 50% off on ADSL 2M/64K&5M/384K monthly rate. 	1,718	persons 7,442 NT\$ thousand
4G Mobile Data Plan for Disabled Persons	<ul style="list-style-type: none"> Disabled persons are entitled to a NT\$ 200 discount on monthly subscriptions when subscribing to the 4G 636 plan and above plus Wi-Fi hotspots for NT\$ 89. 	-	12,560 NT\$ thousand
Broadband Preferential Plan for the Disabled	<ul style="list-style-type: none"> 5% off on HiNet 16M/3M, 35M/65M, 60M/20M and 100M/40M monthly rate. 15% off on ADS 5M/384K monthly rate. 5% off for other rates. 	789	persons 342 NT\$ thousand
MOD Plan for the Socially Unfortunate	<ul style="list-style-type: none"> Platform charges: A 50% discount (NT\$ 45/month) for the first 24 months from the work completion date. Subscribers of the family premium package are entitled to 10% discount (NT\$ 243/month) for 24 months, and the normal rate after the discount period expires. Family advance package: A 10% discount for a one-year subscription of the family advance package, subject to the period of availability (amount payable: NT\$ 98/month). 	1,106	persons 956 NT\$ thousand
Healthy Internet Plan	<ul style="list-style-type: none"> For low-income households, providing free first-year service to protect children from harmful websites such as pornography, violence, suicide, weapons, gambling, and drugs. 	232	persons 275 NT\$ thousand
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 embossment for the visually impaired on the "5" key, and a function for voice adjustment from 3db to 6db that is exclusively prepared for people with hearing aids. A slot for inserting an IC card is designed on the side of all public telephone sets for the convenience of the visually impaired. 		
Message Relay Service for the Hearing and Speech Impaired	<ul style="list-style-type: none"> All telephone messages will be translated and faxed to the service hotline 0800-080885. 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 for the relay of messages via fax to the hearing and speech impaired. The service hours are 08:00-21:00 daily. 		



Table of the Key Associations Joined by Chunghwa Telecom

Chunghwa Telecom has joined almost 100 associations and groups to upgrade its technology and stimulate the development of the industry through exchange and cooperation within the industry and across different industries:

Name of Organization	Note	Qualification
The Chinese Institute of Electrical Engineering	Present opinions on the telecommunication policies of the government through the telecommunication symposium held by the institute, and sponsor the activities of the institute to perform the responsibilities of supporting the industry.	Member
Taiwan Intelligent Aerotropolis Association	CHT leads the planning and the operation of the association to develop new business opportunities and the industrial prowess of Taiwan, and develop the kind of skills capable of exporting solutions to all around the world.	Member
Taiwan Telecommunication Industry Development Association	The platform serves for interchange among the industry peers. With collective consultation and discussion on important issues, this association plays the role as the bridge between the industry and the competent authority.	Member
Chinese International Economic Cooperation Association	We delivered speeches on special topics upon invitations of the association, and assist in the promotion of international exchange and business joint venture.	Member
TCCDA (Taiwan Customer Service Center Development Association)	Organizes seminars frequently and introduces the latest customer service system techniques, operation management, and the concept of service and business innovation, which is helpful for CHT to improve its operational management and customer service.	Member
Pacific Telecommunications Council (PTC)	Contacts with worldwide telecommunications at regular intervals for business deals in nearby locations. This provided substantial results in overseas business expansion.	Member
BCSD Taiwan	Good for the review of sustainable corporate development strategy and the introduction of related management tool, control the dynamics of the international development of CSR issues.	Member
Cloud Computing Association in Taiwan	It helps to get a grip on the information of the government cloud and business opportunity and consult the government on the cloud industry through the association.	Member
Taiwan Electromagnetic Industry-Academia Consortium	The research consortium organized by the university faculties specialized in electromagnetic across Taiwan who have strong potential for the research and development of B4G/5G wireless technology.	Member



ASSURANCE STATEMENT

SGS TAIWAN LTD.'S REPORT ON SUSTAINABILITY ACTIVITIES IN THE CHUNGHWA TELECOM CO., LTD.'S CORPORATE SOCIAL RESPONSIBILITY REPORT FOR 2016

NATURE AND SCOPE OF THE ASSURANCE/VERIFICATION

SGS Taiwan Ltd. (hereinafter referred to as SGS) was commissioned by Chunghwa Telecom Co., Ltd. (hereinafter referred to as CHT) to conduct an independent assurance of the Corporate Social Responsibility Report for 2016 (hereinafter referred to as CSR Report). The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included the text, and data in accompanying tables, contained in this report.

The information in the CHT's CSR Report of 2016 and its presentation are the responsibility of the management of CHT. SGS has not been involved in the preparation of any of the material included in CHT's CSR Report of 2016.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of verification with the intention to inform all CHT's stakeholders.

The SGS protocols are based upon internationally recognized guidance, including the Principles contained within the Global Reporting Initiative (GRI) Sustainability Reporting Standards (2016) for accuracy and reliability and the guidance on levels of assurance contained within the AA1000 series of standards and guidance for Assurance Providers.

This report has been assured using our protocols for:

- evaluation of content veracity at a high level of scrutiny for CHT and moderate level of scrutiny for subsidiaries and applicable aspect boundaries outside of the organization covered by this report;
- AA1000 Assurance Standard (2008) Type 2 evaluation of the report content and supporting management systems against the AA1000 Accountability Principles (2008);
- evaluation of the report against the Global Reporting Initiative Sustainability Reporting Standards (2016);
- evaluation of the report against the GRI Telecommunications Sector Supplement (Pilot Version 1.0); and
- evaluation of the report against the The IIRC International <IR> Framework (Chinese version 2015) requirements for content elements.

The assurance comprised a combination of pre-assurance research, interviews with relevant employees, superintendents, CSR committee members and the senior management in Taiwan; documentation and record review and validation with external bodies and/or stakeholders where relevant. Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirm our independence from CHT, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with ISO 26000, ISO 20121, ISO 50001, SA8000, EICC, QMS, EMS, SMS, GPMS, CFP, WFP, GHG Verification and GHG Validation Lead Auditors and experience on the SRA Assurance service provisions.

VERIFICATION/ ASSURANCE OPINION

On the basis of the methodology described and the verification work performed, we are satisfied that the information and data contained within CHT's CSR Report of 2016 verified is accurate, reliable and provides a fair and balanced representation of CHT sustainability activities in 01/01/2016 to 12/31/2016.

The assurance team is of the opinion that the Report can be used by the Reporting Organisation's Stakeholders. We believe that the organisation has chosen an appropriate level of assurance for this stage in their reporting. In our opinion, the contents of the report meet the requirements of GRI Standards Core Option and AA1000 Assurance Standard (2008) Type 2, High level assurance. The report also appropriately responds to the content elements requirements of The IIRC International <IR> Framework.

AA1000 ACCOUNTABILITY PRINCIPLES (2008) CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

Inclusivity

CHT has demonstrated a strong commitment to stakeholder inclusivity and stakeholder engagement. A variety of engagement efforts such as survey and communication to employees, customers, investors, authorities, local communities, suppliers and other stakeholders are implemented to underpin the organization's understanding of stakeholder concerns. For future reporting, CHT may proactively consider having more direct multi-ways involvement of stakeholders during future engagement.

Materiality

CHT has established effective processes for determining issues that are material to the business. Formal review has identified stakeholders and those issues that are material to each group and the report addresses these at an appropriate level to reflect their importance and priority to these stakeholders.

Responsiveness

The report includes coverage given to stakeholder engagement and channels for stakeholder feedback. Future reporting would benefit from a more in-depth disclosure of stakeholder feedback.

GLOBAL REPORTING INITIATIVE REPORTING STANDARDS (GRI STANDARDS 2016) CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

Principles

The report, CHT's CSR Report of 2016, is adequately in line with the GRI Standards Core Option. The material aspects and their boundaries within and outside of the organization are properly defined in accordance with GRI's Reporting Principles for Defining Report Content. Disclosures of identified material topics and boundaries, and stakeholder engagement, Disclosure 103-1, Disclosure 102-40 and Disclosure 102-42 to Disclosure 102-49, are correctly located in content index and report.

RECOMMENDATIONS

Disclosures on Management Approach and its components for material topics, such as specific actions, may be further enhanced and detailed disclosures by employee category on 405-2 are encouraged in future reports.

Signed:

For and on behalf of SGS Taiwan Ltd.



David Huang, Director

Taipei, Taiwan

1 June, 2017

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The Management Approach and Its Components in 2016

Material Topic	How We Manage the Topic
Economic Performance	We have a robust corporate governance system that involves independent directors and supervisors. The Audit Committee, the Strategy Committee and the Audit Department have been established for effective control of operating costs and business direction.
Market Presence	Chunghwa Telecom has a “Compensation Committee” and transparent compensation policies in place to share its performance with employees. In addition, the Company offers multiple benefits and training programs to provide employees with “assurance.”
Anti-Corruption	To ensure that all employees can conduct business activities with the highest ethical standard, we have implemented the “Business Integrity Principles,” the “Behavior Guidelines,” and the “Integrity Procedures and Behavior Guidelines” that outline the ethics and responsibilities that employees are bound to obey in all commercial conducts. Furthermore, we actively convey to employees about the Company’s culture or its ethical policies.
Environmental Compliance	We have created an “Environmental Sustainability Team” under the “CSR Committee” that specializes in determining short, medium and long-term environmental goals. The team exists to make sure that issues such as energy conservation, carbon reduction, and environmental protection are addressed in the Company’s operational plans, and to outline codes of conduct, manuals, green energy standards and greenhouse gas reduction targets.
Employment	CHT treats employees as its most important partners, and is committed to providing employees the utmost “assurance.” For best protection of employees’ work rights, Chunghwa Telecom has signed the “employment contracts” with individual employees and notifies them of changes regarding employment under the Labor Standards Act. Furthermore, we exploit various communication channels including seminars and labor-management meetings to maintain a harmonious and mutually beneficial working relationship.
Occupational Health and Safety	Chunghwa Telecom was the first telecommunication carrier in Taiwan to adopt the OHSAS 18000 - Occupational Health and Safety System. It has an “Occupational Safety and Health Committee” in place that holds regular meetings to review and coordinate on various issues concerning workers’ safety.
Diversity and Equal Opportunity	We willingly comply with The Principles of The UN Global Compact. Concerning human rights, we respect and uphold all basic rights recognized in the world, and refrain from any disregard or neglect of such rights. In terms of employment practices, we protect workers’ freedom of association, while recognize and support their rights to negotiate with the employer in the form of collective bargaining. We are dedicated to eliminating all forms of illegal labor and discrimination.
Forced or Compulsory Labor	Chunghwa Telecom is the only telecommunication carrier in Taiwan with union establishment; it has also signed a collective bargaining agreement with the union. All employees have signed the “Employment Contract”; seminars and labor-management meetings are held on a regular basis to resolve employment issues.
Customer Health and Safety	All products and services of Chunghwa Telecom are offered with user instructions that describe product nature and applicable information. Impacts of excessive usage have been taken into consideration during the design phase and gentle reminders are given at the time of the sale.
Marketing and Labeling	In addition to providing relevant information and usage descriptions on all products and services offered, we also have a “Marketing Policy” in place to ensure that business activities are carried out in compliance with the authority’s rules and requirements. Compliance with such policy constitutes part of senior managers’ performance appraisal.
Customer Privacy	We have a Personal Information Protection Task Force created under the Information Strategy Committee; its duties are to execute the Committee’s policies and perform personal information risk assessments monthly. All key business activities that are have prone to information risks have been audited and certified by a third party.

Purpose of the Management Approach	Policy	Goal & Target (Page Number)	Grievance Mechanism
To ensure that the Company's operations conform to the requirements of the government and supervising authorities, and that shareholders' and stakeholders' interests are protected.	"Business Integrity Principles," "Behavioral Guidelines," "Corporate Governance Principles"	20	<ul style="list-style-type: none"> Shareholder hotline: 2394-1845 Investor hotline: 23445488
To protect employees' rights and attract and retain talents.	"Business Integrity Principles," "Behavior Guidelines"	30-31,72	<ul style="list-style-type: none"> Complaint Investigation Committee Grievance hotline: 0800-080998
To effectively manage and ensure that all operating activities are compliant with commercial, marketing, and integrity principles, and to eliminate corruption.	"Business Integrity Principles," "Behavior Guidelines," "Corporate Governance Principles"	43	<ul style="list-style-type: none"> Complaint Investigation Committee Grievance hotline: 0800-080998
To ensure that the Company's operations are free from violations of environmental regulations.	"Chunghwa Telecom Environmental Protection and Energy Saving Policy"	84	-
To ensure that employees' employment and work rights are protected.	"Employment Contract," "Business Integrity Principles," "Behavior Guidelines," "Corporate Governance Principles"	70,74	<ul style="list-style-type: none"> Complaint Investigation Committee Grievance hotline: 0800-080998
To ensure employees' mental health, physical health, and safety are maintained well.	"Business Integrity Principles," "Behavior Guidelines," "Corporate Governance Principles"	78-80	<ul style="list-style-type: none"> Occupational Safety and Health Committee Grievance hotline: 0800-080998
To ensure that employees' employment and work rights are protected, using various control measures.	"Employment Contract," "Employee Retirement and Redundancy Guidelines," "Behavior Guidelines," "Chunghwa Telecom Co., Ltd. Employee Performance Appraisal Guidelines"	72,74	<ul style="list-style-type: none"> Complaint Investigation Committee Grievance hotline: 0800-080998
To ensure that employees' employment and work rights are protected.	"Employment Contract," "Behavior Guidelines," "Chunghwa Telecom Co., Ltd. Procurement Grievance Procedures"	46,70,74	<ul style="list-style-type: none"> Supplier: 23443197 Grievance hotline: 0800-080998
To ensure that the products and services offered do not pose any health and safety risk to consumers.	"Distribution Sales Aid Management Guidelines," "Distribution Sales Aid Management Policy," "Marketing Policy"	59,68	<ul style="list-style-type: none"> Telecom service center: 0800-080-123
To protect consumers' rights to information and ensure the clarity and transparency of marketing information.	"Distribution Sales Aid Management Guidelines," "Distribution Sales Aid Management Policy," "Marketing Policy"	59	<ul style="list-style-type: none"> Telecom service center: 0800-080-123
To ensure that customers' personal information is strictly protected.	"Customer Personal Information Gathering Advice Clause," "Information Security Policy," "Information Security Management Policy and Implementation Rules"	61	<ul style="list-style-type: none"> Telecom service center: 0800-080-123

Evaluation of the Management Approach in 2016

Material Topic	Mechanism for Evaluation	Result of the Evaluation (Page Number)	Adjustment
Economic Performance	Independent directors, supervisor system, internal audit and evaluation by the relevant authority	20	None
Market Presence	Compensation Committee	30-31,72	None
Anti-corruption	Internal audit, communication/grievance system (including hotlines, emails, and specialized departments), annual online tests, TWSE corporate governance evaluation	43	None
Environmental Compliance	TWSE corporate governance evaluation	84	None
Employment	TWSE corporate governance evaluation, Employment Contract	70,74	None
Occupational Health and Safety	Management system (OHSAS 18000), specialized occupational safety maintenance department, TWSE corporate governance evaluation	78~80	None
Diversity and Equal Opportunity	Complaints Investigation Committee, union, communication/grievance system (including hotlines, emails and specialized departments), performance appraisal system	72,74	None
Forced or Compulsory Labor	Union, communication/grievance system (including hotlines, emails, and specialized departments), TWSE corporate governance evaluation	46,70,74	None
Customer Health and Safety	TWSE corporate governance evaluation, NCC's "Regulations for Administration of Base Stations of Mobile Communications Network Businesses"	59,68	None
Marketing and Labeling	NCC's telecommunication service quality survey, communication/consumer complaint report	59	None
Customer Privacy	Grievance system, system certification (ISO 27001, BS 10012), internal auditor certification, TWSE corporate governance evaluation	61	None

Environmental Profit & Loss

Environmental Profit & Loss (EP&L) is a way of evaluation of environmental impact from currency value and quantitative industries. Environmental cost and benefit of the value chain being affected by the corporate operation will be calculated in order to quantify the environmental externality into the monetary unit. In addition to the economic value, the environmental impact from the corporate operation should also be considered. In this way, it not only allows the stakeholders to understand the impact brought by the environment issues easily but also helps the corporates review their operation from a wider angle. The result can be used as the decision-making tool for risks or the supply chain management.

Environmental Topic	Impact Assessment Description	Estimated Profit and Loss (NT\$)
 Greenhouse Gas Emission 839,172 t-CO ₂ e	According to Effective Carbon Rates research report issued by OECD in 2016, the effective carbon price is 14 euros (equivalent to NT \$ 485.6)/t-CO ₂ e	(407,501,923)
 Water Usage 2,479 1000m ³	According to the information disclosed by Taipei Water Department, average per unit water discharged is 0.072 kg-CO ₂	(86,673.77)
 Daily Waste 4,706 tons	The environmental management expenses of Chunghwa Telecom in 2016	(286,734,000)
 Purchase of Green Electricity 4 million kWh	Purchase at a higher price by NT\$ 1.6 compared to current pricing per million kWh	4,240,000
 Photovoltaic System A total capacity of 140,000 kWh in 2016	NT\$ 6.48 per unit purchased by Taiwan Power Company	907,200
 Green Product Including Cloud Service, IoT, Smart building, Video conferencing phone, etc.	Please refer to page 52-53 for more information about green products	6,366,000,000
 Electricity Bill 434,164 of paper saved (1,000 sheets)	Reduce a total of 7,815 tons of carbon emissions	3,794,964

*Carbon emission coefficient reference: <https://goo.gl/mxsh7F>

*Water resources coefficient reference: <https://goo.gl/cFhxuo>

General Disclosures

Changes in Reporting	Disclosure Item	Page Number/ URL and Comment	Identified Omission and Explanation	External Assurance
Organizational Profile				
102-1	Name of the organization	Chunghwa Telecom		v
102-2	Activities, brands, products, and services	20-21		v
102-3	Location of headquarters	18		v
102-4	Location of operations	18		v
102-5	Ownership and legal form	32		v
102-6	Markets served	18		v
102-7	Scale of the organization	20		v
102-8	Information on employees and other workers	72-73		v
102-9	Supply chain	22-23		v
102-10	Significant changes to the organization and its supply chain	None		v
102-11	Precautionary Principle or approach	38-42		v
102-12	External initiatives	33		v
102-13	Membership of associations	111		v
Strategy				
102-14	Statement from senior decision-maker	4-5		v
102-15	Key impacts, risks, and opportunities	26-29		v
Ethics and Integrity				
102-16	Values, principles, standards, and norms of behavior	43		v
102-17	Mechanisms for advice and concerns about ethics	43		v
Governance				
102-18	Governance structures	30-31		v
Stakeholder Engagement				
102-40	List of stakeholder groups	8-9		v
102-41	Collective bargaining agreements	70		v
102-42	Identifying and selecting stakeholders	6-8		v
102-43	Approach to stakeholder engagement	8-9		v
102-44	Key topics and concerns raised	6-9		v
Reporting Practice				
102-45	Entities included in the consolidated financial statements	Please refer to CHT's 2016 Annual Report p.117		v
102-46	Defining report content and topic Boundaries	6		v
102-47	List of material topics	8-9		v
102-48	Restatements of information	None		v
102-49	Changes in reporting	None		v
102-50	Reporting period	1		v
102-51	Date of most recent report	2016/8/31		v
102-52	Reporting cycle	Annual		v
102-53	Contact point for questions regarding the report	1		v
102-54	Claims of reporting in accordance with the GRI Standards	Core		v
102-55	GRI content index	114-120		v
102-56	External assurance	112-113		v

Management Approach	Disclosure Item	Page Number
	103-1 Explanation of the material topic and its Boundary	6-9, 114-115
	103-2 The management approach and its components	114-115
	103-3 Evaluation of the management approach	116

Topic-specific Disclosures

Topic-specific Disclosure	Disclosure Item	Page Number/ URL and Comment	Identified Omission and Explanation	External Assurance
201 Economic Performance				
201-1	Direct economic value generated and distributed	20		v
201-3	Financial implications and other risks and opportunities due to climate change	83		v
202 Market Presence				
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	71-72		v
205 Anti-corruption				
205-3	Confirmed incidents of corruption and actions taken	43		v
*302 Energy				
302-1	Energy consumption within the organization	90		v
302-4	Reduction of energy consumption	89-91		v
302-5	Reduction in energy requirements of products and services	91,93		v
*305 Emissions				
305-1	Direct (Scope 1) GHG emissions	40		v
305-2	Energy indirect (Scope 2) GHG emissions	40		v
305-3	Other indirect (Scope 3) GHG emissions	41		v
305-5	Reduction of GHG emissions	88-91		v
305-6	Emissions of ozone-depleting substances (ODS)	-	Not applicable	v
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	-	Not applicable	v
307 Environmental Compliance				
307-1	Non-compliance with environmental laws and regulations	None		v
401 Employment				
401-1	New employee hires and employee turnover	73		v
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	81-83		v
401-3	Parental leave	83		v
*402 Labor/Management Relations				
402-1	Minimum notice periods regarding operational changes	74		v
403 Occupational Health and Safety				
403-1	Workers representation in formal joint management-worker health and safety committees	78		v
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	78,80		v
403-4	Health and safety topics covered in formal agreements with trade unions	https://goo.gl/gMRBN1 Health and safety topics make up 6.5% of trade unions.		v
405 Diversity and Equal Opportunity				
405-1	Diversity of governance bodies and employees	31,72		v
405-2	Ratio of basic salary and remuneration of women to men	72		v
*407 Freedom of Association and Collective Bargaining				
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	None		v
409 Forced or Compulsory Labor				
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	None		v
416 Customer Health and Safety				
416-1	Assessment of the health and safety impacts of product and service categories	68		v
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	59		v
417 Marketing and Labeling				
417-2	Incidents of non-compliance concerning product and service information and labeling	None		v
417-3	Incidents of non-compliance concerning marketing communications	None		v
418 Customer Privacy				
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	61,66		v

Note: Topics marked with * have been disclosed voluntarily, and are not part of the material topics identified in 2016.

Telecommunication Sector Specific Indicators

DMA and Indicators	Disclosure Item		Page Number and Comment	Identified Omission and Explanation	External Assurance
SUB-CATEGORY: INTERNAL OPERATIONS					
MATERIAL ASPECT: Investment					
DMA 99	IO1	Capital investment in telecommunication network infrastructure broken down by country/region	64,65,100		v
	IO2	Net costs for service providers under the Universal Service Obligation when extending service to geographic locations and low-income groups, which are not pro table. Describe relevant legislative and regulatory mechanisms.	99		v
MATERIAL ASPECT: Health and Safety					
DMA 68	IO3	Practices to ensure health and safety of field personnel involved in the installation, operation and maintenance of masts, base stations, laying cables and other outside plants. Related health and safety issues include working at heights, electric shock, exposure to EMF and radio frequency fields, and exposure to hazardous chemicals.	80		v
	IO4	Compliance with ICNIRP (International Commission on Non-Ionizing Radiation Protection) standards on exposure to radiofrequency (RF) emissions from handsets	16,68		v
	IO5	Compliance with ICNIRP (International Commission on Non-Ionizing Radiation Protection) guidelines on exposure to radiofrequency (RF) emissions from base stations	16,68		v
	IO6	Policies and practices with respect to Specific Absorption Rate (SAR) of handsets.	16,68		v
MATERIAL ASPECT: Infrastructure					
DMA 68	IO7	Policies and practices on the siting of masts and transmission sites including stakeholder consultation, site sharing, and initiatives to reduce visual impacts. Describe approach to evaluate consultations and quantify where possible.	68		v
	IO8	Number and percentage of stand-alone sites, shared sites, and sites on existing structures.	68		v
SUB-CATEGORY: PROVIDING ACCESS					
MATERIAL ASPECT: Access to Telecommunication Products and Services: Bridging the Digital Divide					
DMA 100	PA1	Policies and practices to enable the deployment of telecommunications infrastructure and access to telecommunications products and services in remote and low population density areas. Include an explanation of business models applied.	67,100		v
	PA2	Policies and practices to overcome barriers for access and use of telecommunication products and services including: language, culture, illiteracy, and lack of education, income, disabilities, and age. Include an explanation of business models applied.	67,100-102		v
	PA3	Policies and practices to ensure availability and reliability of telecommunications products and services and quantify, where possible, for specified time periods and locations of down time.	67,100-102		v
	PA4	Quantify the level of availability of telecommunications products and services in areas where the organization operates. Examples include: customer numbers/market share, addressable market, percentage of population covered, percentage of land covered.	65,98,108		v
	PA5	Number and types of telecommunication products and services provided to and used by low and no income sectors of the population. Provide definitions selected. Include explanations of approach to pricing, illustrated with examples such as price per minute of dialogue/bit of data transfer in various remote, poor or low population density areas.	110		v
	PA6	Programs to provide and maintain telecommunication products and services	42,67		v
MATERIAL ASPECT: Access to Content					
DMA 100	PA7	Policies and practices to manage human rights issues relating to access and use of telecommunications products and services.	100-102		v
MATERIAL ASPECT: Customer Relations					
DMA 68	PA8	Policies and practices to publicly communicate on EMF related issues. Include information provides at points of sales material.	68		v
	PA9	Total amount invested in programs and activities in electromagnetic field research. Include descriptions of programs currently contributed to and funded by the reporting organization.	None		v
	PA10	Initiatives to ensure clarity of charges and tariffs.	59 https://goo.gl/2Vbsdg		v
	PA11	Initiatives to inform customers about product features and applications that will promote responsible, efficient, cost-effective, and environmentally preferable use.	59-60		v
SUB-CATEGORY: Technology Applications					
MATERIAL ASPECT: Resource Efficiency					
DMA 52	TA1	Provide examples of the resource efficiency of telecommunication products and services delivered.	59-60		v
	TA2	Provide examples of telecommunication products, services and applications that have the potential to replace physical objects (e.g. a telephone book by a database on the web or travel by videoconferencing)	52-53, 101-103		v
	TA3	Disclose any measures of transport and/or resource changes of customer use of the telecommunication products and services listed above. Provide some indication of scale, market size, or potential savings.	52-53, 101-103		v
	TA4	Disclose any estimates of the rebound effect (indirect consequences) of customer use of the products and services listed above, and lessons learned for future development. This may include social consequences as well as environmental.	64-66, 101-102		v
	TA5	Description of practices relating to intellectual property rights and open source technologies.	54-56		v



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