

Sustainable Transformation to Low-carbon and Net Zero

# 2022 ESG REPORT



## Editorial Policy

Welcome to Chunghwa Telecom's 16th Environmental, Social, Governance (ESG) Report. This Report discloses Chunghwa Telecom's efforts and results in practicing corporate sustainability in 2022, so that stakeholders that care for us may better understand and trust in the results of our commitment in corporate sustainability management. This report is published in both Chinese and English on a dedicated ESG website.

\* <https://www.cht.com.tw/en/home/cht/esg/esg-report/sustainability-esg-report>

## Reporting Period and Scope

This report discloses the Company's ESG management policies, material issues, countermeasures, initiatives and results between January 1 and December 31, 2022. The scope of Report encompasses 100% the operating sites of Chunghwa Telecom parent company only financial statements, while sections with different scope of disclosure shall be noted. However, to ensure complete coverage, parts of the report include descriptions of initiatives and results from 2021 to 2023.

The frequency of this report is issued once a year. The last issue date: June 30, 2022; the next issue date: June 30, 2024.

## References

Issuing Organization	Item
The Global Reporting Initiative, GRI	GRI Standards
The International Integrated Reporting Council, IIRC	International <IR> Framework
Sustainability Accounting Standards Board, SASB	Telecommunication Services Sustainability Accounting Standard, SASB
Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies	<ul style="list-style-type: none"> <li>Telecommunication Industry</li> <li>Climate related information of listed listed companies</li> </ul>

## How to Read the Report

S	M	A	R	T	I
<b>Strategy</b>	<b>Management</b>	<b>Action</b>	<b>Response</b>	<b>Target</b>	<b>Indicator</b>
Develop strategies and commitments	Management mindsets and mechanisms	Important projects and actions	Stakeholder requests and responses	Future outlook, targets and plans	The GRI, SASB, and Chunghwa Telecom's own Indicators

## Assurance

Content and data of this report have been reviewed and assured by SGS Taiwan Ltd. based on the GRI Standards(2021) and AA1000 AS (2018) Type 2 High Assurance Standards and requirements of the Integrated Reporting Framework and Telecommunication Services Sustainability Accounting Standard, SASB.

## Feedback

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

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**Telephone:** +886-2-2344-2780 **Email:** chtcsr@cht.com.tw

- GRI** GRI Standards
- SASB** SASB Accounting Metrics
- CHT** Chunghwa Telecom's Indicator

Unless otherwise specified, all currency units used in this report's financial data are by default New Taiwan Dollars (NT\$).

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# Message from the Chairman

Facing the challenges brought by global climate change and the COVID-19 epidemic in the past three years, Chunghwa Telecom upheld the spirit of "Always Ahead" and the business strategy of advancement on 3 fronts, Transformation × 5G × Sustainability, to ceaselessly create value for investors and the social economy leveraging the advantages in innovative information and communication technology (ICT). Its financial and operational performances were steady in 2022. Chunghwa Telecom saw continuous growth in the core businesses such as mobile services, ICT services, and broadband services and maintained its leadership in the market. On the path of sustainable development, its performance remained strong. With specific ESG indicators, Chunghwa Telecom is actively marching towards the vision of "green low-carbon, digital empowerment, integrity and transparency," demonstrating the resilience of the Company to the fullest.

We aligned ourselves with the UN Sustainable Development Goals (SDGs). With our core strength in ICT as the point of departure, we connected topics of low-carbon environment, social development, and corporate governance, comprehensively practicing the corporate mission of "Digital Economy Motivator and Creative Industry Pilot." Through setting various ESG performance indicators and active implementation of action plans, we continued to exert our corporate influence for sustainable development.

In the face of the global environmental degradation issue, we created a green and low-carbon environment, implementing the internal carbon pricing mechanism ahead of our peers. Also, we submitted our carbon reduction commitment to the SBTi, setting the target of a 50% carbon reduction by 2030 compared with 2020 levels for an active promotion of low-carbon operations.

In terms of energy efficiency improvement, various energy resources were managed through the innovative Environment ARTificer Theurgy (EARTH) system, and the energy-conservation management for ICT data centers (including the IDCs) was performed via the self-developed Intelligent Environment Network Service (iEN) and the Power Operation Supervisory System (POSS) for IDCs. Meanwhile, we introduced low-energy-consuming equipment; consolidated, integrated, and replaced telecom equipment; optimized mobile network architecture; and turned off low-efficiency 3G cells and base stations to achieve smart power conservation.

In addition, we actively promoted paperless receipt services, replaced aged power and air-conditioning equipment, implemented energy-saving control strategies for air-conditioning, and replaced the lights in the public areas of our office buildings with LED lights. Furthermore, we built rainwater, groundwater, and air-conditioning condensate recovery systems so as to achieve reuse of water resources for a true and precise energy conservation and carbon reduction.

Regarding the use of renewable energy, we undertook the self-built solar power project sites and green base stations. Also, we scale up the procurement of renewable energy year by year and obtain renewable energy certificates (RECs). Meanwhile, we are the first telecom operator in Taiwan to obtain the "BS 8001 Conformity Statement" and have passed the "conformity check for the TCFD Recommendations on climate-related financial disclosure" at the highest level.

In addition, to guide the partners on the industrial value chain and seize the low-carbon business opportunities, Chunghwa Telecom is also the first telecom operator in Taiwan to join the "Carbon Disclosure Project (CDP)." With the strategy of the extensive alliance for sustainability and the Sustainability Partner Rating System combined, we unceasingly promote a green, low-carbon supply chain. In 2022, we joined hands with 35 significant suppliers to launch the net-zero initiative of "Hand in Hand with Partners for

Carbon Reduction Together" to collectively contribute to sustainable transformation.

In order to promote social inclusion, together with the Chunghwa Telecom Foundation (CHTF), we have been assisting and caring for rural and diverse groups. For over a decade, aside from the ongoing execution of "Read with You Community Network Tutoring" and "EYE Social Innovation Call Center," upon seeing the social and economic difficulties during the post-epidemic recovery in 2022, we doubled our investment of resources to innovate and promote the Tech4Good digital empowerment ecosystem. By offering high-quality and high-speed ICT services, we endeavor to bridge the digital divide, create digital opportunities, and practice digital equality.

Meanwhile, we continued to actively implement the "5I SDGs" (I Love SDGs) initiative, which we first proposed in 2018. It not only helped children in rural areas to continue to absorb education resources to fight for life-changing opportunities, but also promoted emergency medical care services through 5G private networks so as to take care of the people in rural areas. Furthermore, the initiative supported the small and medium-sized enterprises (SMEs) and businesses in accessing digital technology to mitigate the economic impacts of the pandemic. In the meantime, it also strengthened the environmental awareness of all and promoted the diversified "5G Plastic Free" sustainable campaign, including corporate environmental volunteer training, innovative offering of eco-friendly NFTs, application of 5G unmanned vessels to remove marine debris, an extensive invitation to sub-groups and supplier partners to respond to beach/mountain cleanup, and so on. Hence, we comprehensively practiced the corporate mission of becoming a "Leader in Smart Living" and "Agent of Digital Economy Empowerment."

With regard to the topic of corporate governance, we issued NT\$3.5 billion worth of sustainability bond in 2022, which is not only the first sustainability bond issued by the domestic telecom operator, but also makes us one of the few sustainability bond issuers from the telecommunications industry in the world. The fund shall cover investments in both environmental protection and social development. Also, through independent research and development, extensive alliances, or investments, we are ceaselessly developing emerging businesses in cybersecurity, cloud services, artificial intelligence, big data, and blockchain. With our stellar 5G technology and service quality as well as active risk management and a sound operating system, we seize pioneering opportunities, leading the industries in Taiwan into a new era of digital economy to practice the notion of sustainable business development.

Thanks to the incessant efforts of the Company in ESG, we were recognized by the majority of stakeholders in 2022, including:

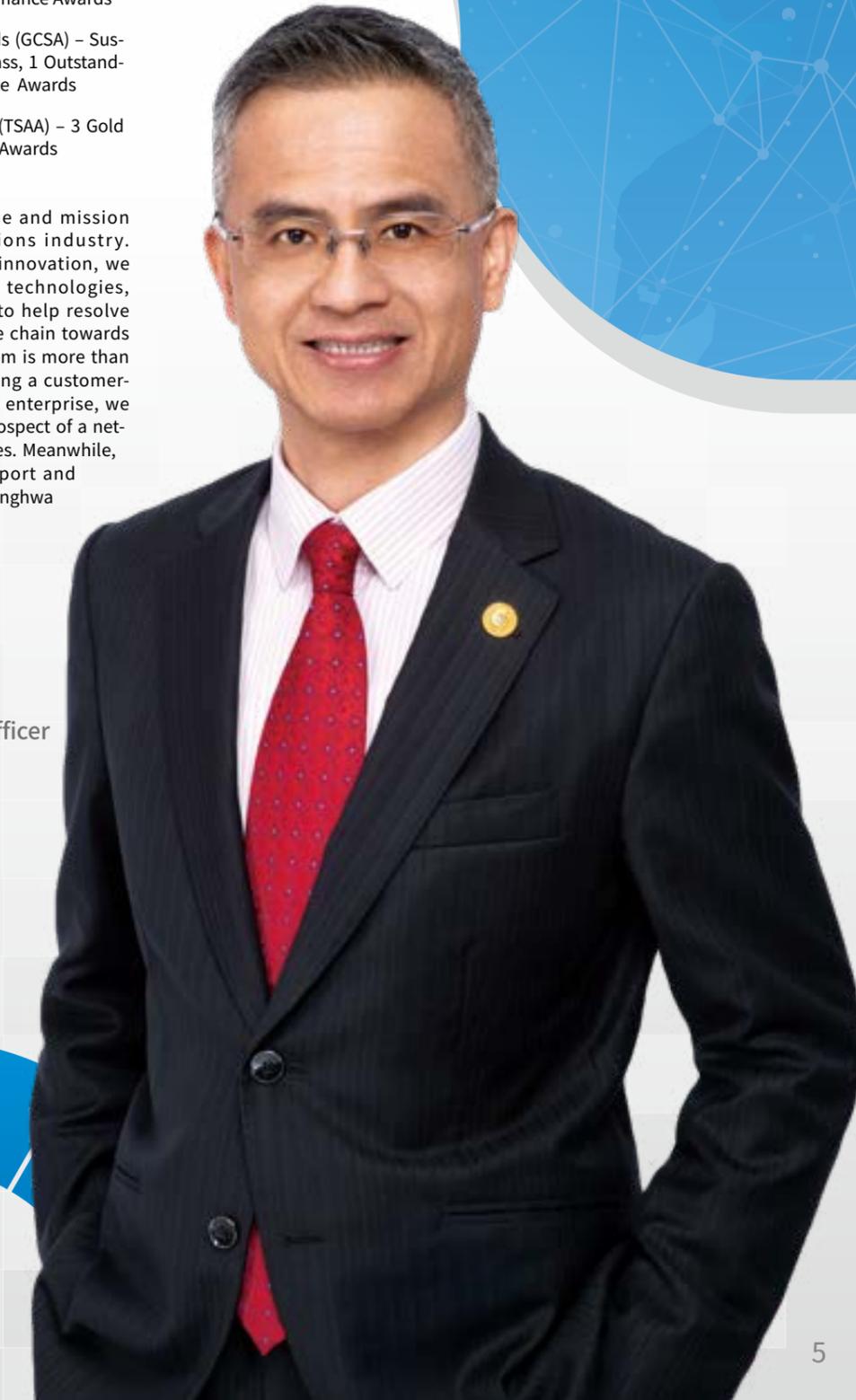
- 1 Recognitions by the Dow Jones Sustainability Index (DJSI), included in the DJSI World Index as the No. 3 of all the assessed telecom operators in the world and in the DJSI Emerging Markets Index for 11 years in a row
- 2 MSCI ESG Ratings "A" (upgraded to "AA" as of May 2023)
- 3 No. 4 in the surveyed telecom companies in the world and No. 1 in the surveyed companies from Taiwan in the World's Top Female-Friendly Companies 2022, Forbes
- 4 Jade Award in The Asset ESG Corporate Awards
- 5 Taiwan Telecommunication Services Company of The Year & the first Taiwan 5G Services Customer Value Leadership Award, Frost & Sullivan
- 6 National Sustainable Development Awards, Executive Yuan

- 7 Top 5% in the Corporate Governance Evaluation for 8 times
- 8 A constituent of the FTSE4Good TIP Taiwan ESG Index
- 9 "First Place, Overall Performance: Telecommunications Industry" and "First Place, Elderly-Friendly Group," Annual Corporate Social Responsibility & ESG Award by Global Views Monthly
- 10 Taiwan Corporate Sustainability Awards (TCSA) – Top Ten Domestic Corporates and 7 Performance Awards
- 11 Global Corporate Sustainability Awards (GCSA) – Sustainability Reporting Award: Silver Class, 1 Outstanding Practice Award, and 2 Great Practice Awards
- 12 Taiwan Sustainability Action Awards, (TSAA) – 3 Gold Awards, 2 Silver Awards, and 2 Bronze Awards

We have been upholding the core value and mission as a pioneer in the telecommunications industry. With the philosophy of excellence and innovation, we unceasingly utilize our core expertise, technologies, resources, competencies, and features to help resolve social issues and lead the industrial value chain towards digital transformation. "Chunghwa Telecom is more than just a telecom carrier." Committed to being a customer-centric, sustainable, and low-carbon ICT enterprise, we shall work together with Taiwan for the prospect of a net-zero future and create more virtuous circles. Meanwhile, we look forward to the continuous support and encouragement from various sectors to Chunghwa Telecom.



Shui-Yi Kuo  
Chairman and Chief Executive Officer  
Chunghwa Telecom Co., Ltd.





# 2022 ESG Milestones

1  
Jan

- Only Outstanding Entity, National CIP Designated Exercise for Critical Infrastructure Protection from the Executive Yuan
- "Fastest 5G" and "Fastest Mobile Network" in Taiwan during Q3-Q4 2021 of Speedtest Awards 2021
- Taiwan's Arts & Business Award – Golden from the Ministry of Culture
- The National Brand Yushan Award (the only ICT service company to receive the award) from Enterprise Competitiveness Development Association



2  
FEB

- The Sustainability Yearbook Rankings – Bronze Class from S&P Global

6  
JUN

- Double Platinum Awards in Reader's Digest Trusted Brand
- MSCI ESG rating to A



9  
SEP

- Digital Transformation Revolution Award - Overall Digital Transformation Award (Service Industry Vanguard Award), First Prize from Harvard Business Review.
- No. 13 in the Large Enterprises, Excellence in Corporate Social Responsibility Award from Common-Wealth Magazine



4  
APR

- Awarded Top 5% of the Corporate Governance Evaluation from the Taiwan Stock Exchange Corporation

7  
JUL

- "Fastest 5G" and "Fastest Mobile Network" in Taiwan during Q1-Q2 2022 and the "Fastest 5 Years in a Row Award" in Taiwan of Speedtest Awards 2022



5  
MAY

- Double First Prize in the 18th Annual Corporate Social Responsibility & ESG Award – Overall Performance and Outstanding Program: Elderly-Friendly Group by Global Views Monthly



8  
AUG

- 3 Golden, 2 Silver and 2 Bronze Awards in Taiwan Sustainability Action Award from Taiwan Institute for Sustainable Energy
- 2022 Taiwan Telecommunication Services Company of The Year and 2022 Taiwan 5G Services Customer Value Leadership Award from Frost & Sullivan
- Microsoft Taiwan "Top CSP Direct Partner"



10  
OCT

- Best Products – Yushan Award of The National Brand Yushan Award from Enterprise Competitiveness Development Association
- Special Award for Digital Resiliency in Taiwan – Future Enterprise Awards from IDC
- The investment drama, "Tavern by the Lethe", won The Creative Award from Golden Bell Awards
- The "Taipei Fintech Investor Award" for excellence from Taiwan Financial Services Roundtable and Taiwan Academy of Banking and Finance
- One of the FTSE4Good TIP Taiwan ESG Index Constituents



11  
NOV

- "Sports Enterprise Certification" and "Highest Honor in Sports Promotion Award" from Sports Administration, Ministry of Education
- "Happiness Enterprise - Technology Research and Development" Gold Award from 1111 Job Bank
- "Service Innovation Award" in the Evaluation of 5G Smart Transportation Subsidy Program from the Ministry of Transportation and Communications
- 4th Global Best Practice of IOT and Smart Service Golden Dragon Award from Taiwan Internet Of Things Alliance (TIOTA)
- 13 awards including "Taiwan Corporate Sustainability Award (TCSA)" and "Global Corporate Sustainability Awards (GCSA)" from Taiwan Institute for Sustainable Energy
- S&P Global Ratings "AA" long-term issuer credit ratings, top of the global telecom services; Taiwan Ratings "twAAA" long-term issuer credit ratings



12  
DEC

- Best Customer Service Innovation System Application Enterprise and Best Customer Service Provider Award from Taiwan Contact Center Development Association
- Recipient of the "Special Excellence Award" in the Critical Infrastructure Protection Exercise organized by the Executive Yuan for three times
- Included in the Dow Jones Sustainability Indices (DJSI) in both the World Index and Emerging Markets Index
- "National Sustainable Development Award" from the Executive Yuan
- The World's Top Female-Friendly Companies by Forbes.
- The application of 5G Smart Harbor received 2022 Asia Communication Awards from Total Telecom
- "Excellent Marketing Enterprise Support for Domestic Agricultural Products" from the Agriculture and Food Agency, Council of Agriculture, Executive Yuan
- Four first-place rankings during Q1-Q2 2022 from Opensignal, the only company in Taiwan to be awarded by two international authoritative institutions for being the fastest in 5G network speed
- "ESG Corporate Award - Jade Award" from The Asset magazine



# ESG Story

## Business Continuity - COVID-19 Prevention Measures

As COVID-19 rampaged on worldwide in 2022, either enterprises or individuals had suffered severe impact. As COVID-19 rampaged on worldwide in 2021, either enterprises or individuals had suffered severe impact. As a local leading enterprise, we "deployed preemptively" and "improved on a rolling basis" comprehensively. Internally, the national team of epidemic prevention of CHT, according to CHT Preparedness and Contingency Plan in Response to COVID-19, supported vulnerable groups, ensured the operation of critical infrastructure networks, information computer rooms, and important information systems, and ensured the health protection of employees; externally, improved customer service quality. We also actively supported the government's various epidemic prevention work and measures and implemented the overall epidemic prevention solution to jointly protect the health of the people.

### Chunghwa Telecom Epidemic Prevention Highlight Measures:



1. Set up the epidemic prevention command center in accordance with the CHT Preparedness and Contingency Plan in Response to COVID-19, establish an Business Continuity Plans, and conduct continuous exercises.



2. We provided the free customer service hotline 24/7, developed multiple online service and self-help channels. Customers could conduct business at home without worries.



3. We Self-developed "Epidemic Monitor and Management System" to promote various technological epidemic prevention measures:

- Paperless night market transaction: Integrating multi-mobility and scanning code payment, cashless transaction services were introduced for contact-free payment for local shops, SMEs, microenterprises, and night market vendors.
- Offsite working/Work from Home: Epidemic prevention plans with cybersecurity at the core were offered for enterprises with needs of offsite working; broadband Internet environment of "triple networks" with fixed line, mobile network, and Wi-Fi services.
- Prepaid cards were provided to the Ministry of Education for the disadvantaged students in the rural areas.



4. Discounts for telecom service fees: The telecom rates of the businesses and schools impacted by the epidemic were lowered moderately to reduce the burdens thereto, while Prepaid SIM Cards were provided to especially economically-disadvantaged students, free of charge.

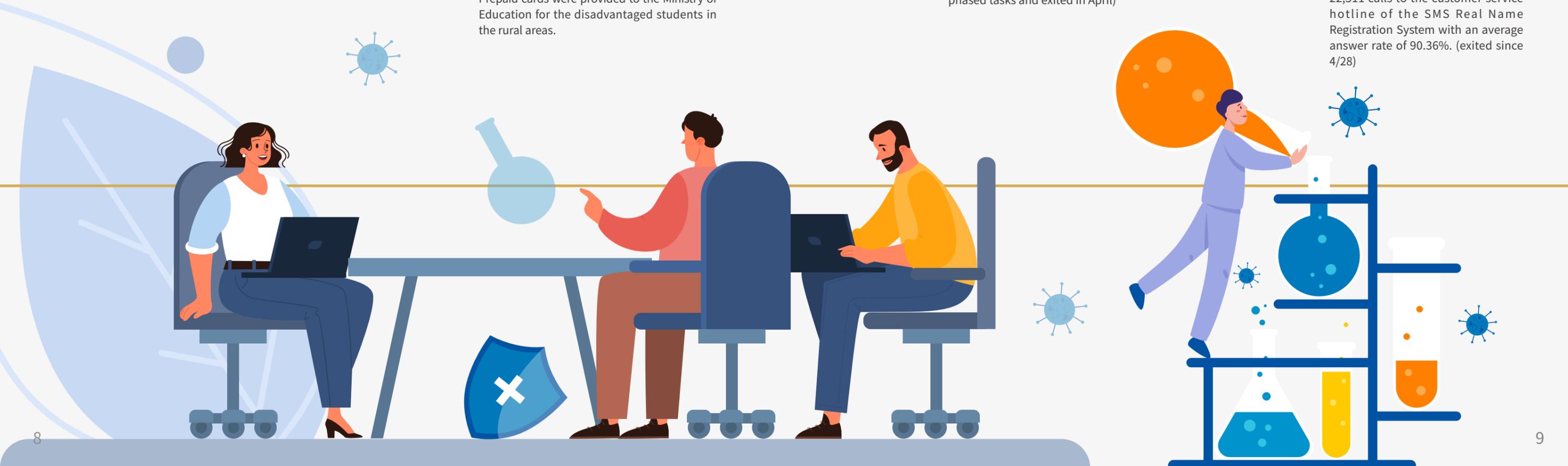
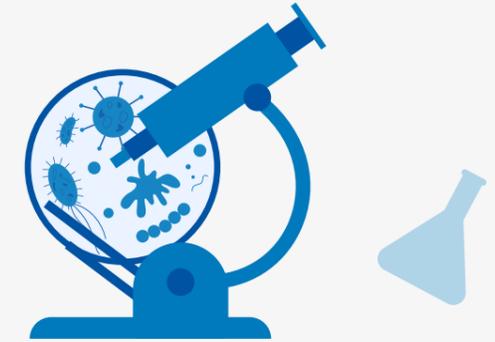
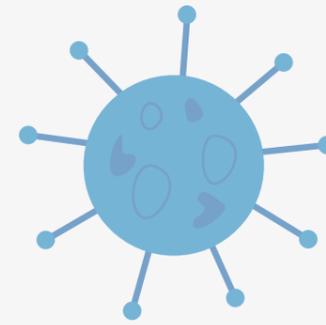


5. ICT epidemic prevention (SMS Real Name Registration System): The SMS Real Name Registration System was established for the MOHW to significantly reduce difficulties in the outbreak investigation. (completed phased tasks and exited in April)



6. Support to Taiwan CDC Toll-free Hotline 1922: The total number of Taiwan CDC toll-free hotline 1922 is up to 7.53 million in 2022 with an average answer rate of 68.3%.(Excluding the April-May period, when the Central Epidemic Command Center launched the Self-Reporting systems for confirmed cases, a large number of people came in to inquire about the resettlement of confirmed cases, with an average response rate of 85%.)

- 352,432 calls to the NIA's Foreigners In Taiwan Hotline with an average answer rate of 79.06%.
- 22,311 calls to the customer service hotline of the SMS Real Name Registration System with an average answer rate of 90.36%. (exited since 4/28)



## Chunghwa Telecom Digital Empowerment Helps Carbon Reduction in Taiwan

The disasters arising from climate change due to global warming are issues the modern society has to face. The overarching goal of the Paris Agreement in 2015 is to hold the increase in the global average temperature to well below 2°C and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels by the end of this century. To attain this goal, in line with the Science Based Targets initiative (SBTi), companies ought to account for all Scope (1 to 3) of "greenhouse gas emissions" and set the short-term reduction target by 2030, aiming for achieving net-zero emissions by 2050. According to the research by Morgan Stanley Capital International (MSCI), the information technology sector accounted for up to 88% of the average Scope 3 emissions (upstream and downstream sources), of which "Purchased Goods and Services" accounted for 52%. How to reduce carbon emissions from the supply chain has become a challenging topic for companies to achieve the goal of Net Zero.

With the applications of digital empowerment composed of 5G, AI, big data, cloud computing, sensors, and high-speed chips, Chunghwa Telecom optimizes energy use efficiency, reduces carbon emissions in various industries, and achieves the objective of "more online and less on-road." Analyzed and verified via the model of Industry, Science and Technology International Strategy

Center, Industrial Technology Research Institute (ITRI), the services provided by Chunghwa Telecom per 1 kilowatt-hour (kWh) of electricity reduce 5.64 kWh of electricity for the industries in Taiwan.

The telecom industry of highly digitalized countries<sup>1</sup> have brought forth digitally empowered carbon reduction benefits of 729.5 million metric tons of CO<sub>2</sub>e. The digitally empowered carbon reduction benefits in Taiwan were 29.5 million metric tons of CO<sub>2</sub>e. Based on the market share of Chunghwa Telecom, it helped Taiwan reduce carbon by 12.36 million metric tons of CO<sub>2</sub>e in 2021, which is equivalent to the carbon emissions of Taipei City for a whole year reduced<sup>2</sup>.

1. 14 countries, including the United States, Hong Kong, Sweden, Denmark, Singapore, Switzerland, the Netherlands, Taiwan, Norway, the United Arab Emirates, Finland, South Korea, Canada, and the United Kingdom.
2. The GHG emissions of Taipei City were 11.14 million metric tons of CO<sub>2</sub>e in 2021.



# 1 CORPORATE OVERVIEW

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Chunghwa Telecom (TAIEX:2412, NYSE: CHT) is the largest integrated telecom carrier, with more than 691 locations in 22 counties and cities in Taiwan. Our major business includes domestic fixed network (local network, long haul Internet, broadband access), international fixed network (international network), mobile communication (mobile network), and data communication (HiNet broadband Internet) We also provide corporate customers with information and communication services, including big data, information security, cloud and Internet Data Center. We also offer innovative technology services, such as the IoT (Internet of Things) and AI (Artificial Intelligence), to create an outstanding communication environment and extraordinarily convenient digital life. We also have important business partnerships with other international telecom carriers.

Chunghwa Telecom upholds the service philosophy of "bridge the digital divide, implement environmental sustainability, and care for the disadvantaged". Hence, the core technologies, resources, competencies, and features of the Company have been leveraged to implement the brand spirit of "Always Ahead" on the three fronts of Environmental, Social, and Governance. We demonstrate our determination in sustainable operation with our actions to fulfill our corporate social responsibility on all fronts. In recent years, our active efforts in ESG were constantly recognized by professional institutes at home and abroad.



Main businesses of branch offices and reinvestment companies: Please refer to p.111-113 in the 2022 Annual Report.

The SDGs CHT contributes to in this chapter:



Annual review of the Company's budget planning for **carbon management strategies**; execution of action plans; setting performance targets.



Sustainability issues addressed by Chunghwa Telecom: **creation of social inclusion, digital inclusion, green ICT products & services, green brand management, and energy-saving & carbon reduction.**



To **link sustainability performance with the remuneration of the Board Directors**, Chunghwa Telecom implemented a soft incorporation of sustainable development strategies and targets into its review of **compensation.**



Operational strategy "**Sustainability+5G+Transformation**": Core Business Maintenance, Driving Emerging Businesses, Customer Orientation, Forming Alliances, Group Cooperation.



The **only** telecom operator to have a **labor director** elected.

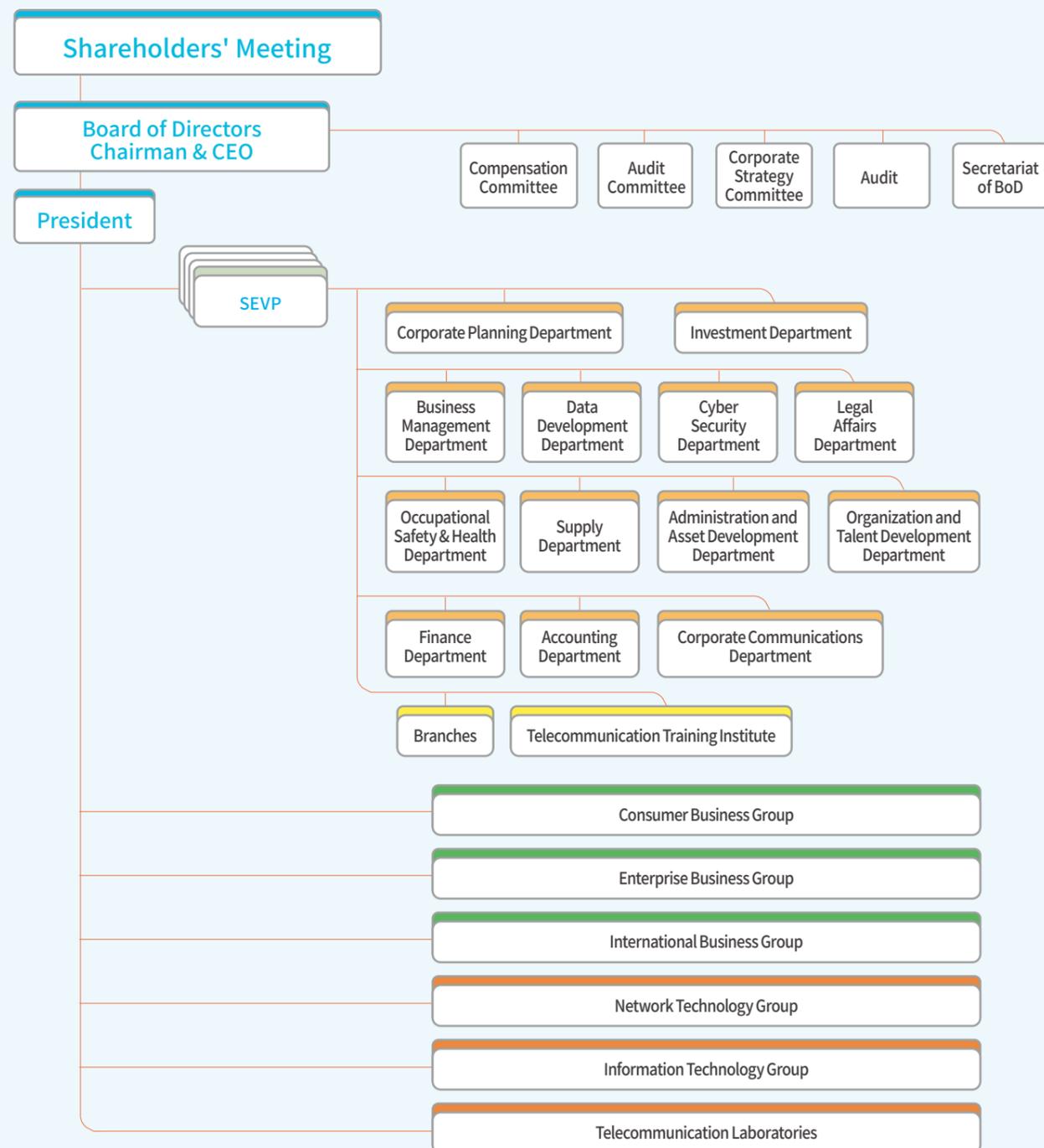


Consolidated net income: NT\$ **216,700,000,000**; Earnings per share: NT\$ **4.70**.



Chunghwa Telecom established a **Sustainable Development Committee** for stipulation of various sustainability policies through its ESG groups.

## Chunghwa Telecom Organization Chart



Chunghwa Telecom implemented the "customer-centric" organizational transformation. On January 1, 2022, the Consumer Business Group was established as one of the three major customer-centric business groups together with the Enterprise Business Group and the International Business Group. Meanwhile, the Network Technology Group was established to integrate mobile network and fixed line businesses. Also, the Data Communication Business Group was renamed as the Information Technology Group on April 30, 2022. Together with the Telecommunication Laboratories, the three technical groups are formed to support the business promotion of three business groups. Hence, we may secure the greatest advantage through the organizational resource integration and overall business synergy to elevate the corporate competitiveness for the prospect of yet another brilliant business performance.

## We Strive to

Create a gateway to an enjoyable digital life for people

Enhance the operational efficiency of corporations

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

Allow investors to enjoy the business profit from a satisfied customer base

## Business Model

### Household market

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

### Personal market

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

### Corporate market

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

## Product and Services

<p><b>Mobile phone</b> Customer amount <b>12.621 million</b> Annual growth <b>+5.9 %</b></p>	<p>Customer amount <b>3.75 million</b> Broadband customers <b>85.5 %</b></p>
<p><b>300 Mbps</b> Customer amount <b>969 thousand</b> Annual growth <b>+51.9 %</b></p>	<p>Customer amount <b>3.664 million</b> Market share <b>No.1</b></p>

## Share of Revenue by Product

### Mobile communication

Customer amount	Market share
<b>12.621 million households</b>	<b>36.6%</b>

### International fixed network

Communication amount	Market share
<b>100.9 million minutes</b>	<b>44.4%</b>

### Internet

Customer amount	Market share
<b>3.664 million households</b>	<b>55.9%</b>

### Domestic fixed network

	Customer amount/ Communication amount	Market share
Local network	<b>9.399 million households</b>	<b>91.4%</b>
Long haul Internet	<b>1,356 million minutes</b>	<b>81.9%</b>
Broadband access	<b>4.386 million households</b>	<b>59.4%</b>
MOD	<b>2.05 million households</b>	<b>30.6%</b>

**Industry Value Chain and Critical Sustainability Performance**

The value chain of the telecom industry is an interdependent and interlocking ecosystem. Construction of infrastructure offers a quality fundamental security; communication services provide basic communication functions; and value-added services supply more diverse and innovative application services. The above-mentioned upstream and downstream elements jointly constitute the value chain of the telecom industry. The wave of digital convergence makes content providers and integrators, application service providers, network equipment suppliers and terminal equipment suppliers the important value partners to a telecom carrier in the development of digital convergence services.

The main business activity of Chunghwa Telecom is to provide general information and communication services. Hence, the ICT equipment procurement makes the majority of its procurement. The procurement in 2022 could fall into categories of property (50%), construction (16%), services (13%), projects and tenders (14%), and repair (2%). The number of Tier-1 Suppliers were 1,915, and the contract amount of the suppliers exceeded NT\$70 billion. Moving forward, Chunghwa Telecom shall continue to better itself in services of fixed network, mobile, data, and eICT while strengthening the partnership with its suppliers throughout the supply chain to form a closer industrial ecosphere to introduce more quality services.



# Corporate Governance



Chunghwa Telecom Board of Directors is the highest governing body. The Board of Directors is responsible for appointing and nominating high-level managers, as well as formulating and reviewing the overall sustainable development strategies and ESG information reporting of the Company. In addition to the overall competencies and industrial experiences for the Board of Directors, the board members also have the abilities for the development of business diversification. To live up to the spirit of board diversity and gender equality, the target of female directors accounting for more than 30% of the Board of Directors by 2025 has been set. 13 directors were elected for the 10th Board of Directors in 2022 (10 male directors and 3 female directors), including 5 independent directors (4 male independent directors and 1 female independent directors). Directors' tenure is three years. Having been serving at Chunghwa Telecom for more than 20 years, Mr. Shui-Yi Kuo, Chairman & CEO of Chunghwa Telecom, has well-rounded experiences in the telecommunications industry. He actively promotes various businesses, implements strategic transformation plans, lays the foundation for the sustainable development of the Company to create values for shareholders, employees, and investors. In addition, external directors (including independent directors) can offer objective, professional opinions based on their diverse professionalism and fields of expertise, helping the Board of Directors make decisions that are most beneficial to the Company and the shareholders.

All independent directors are included in the Audit Committee to ensure the independence of governance and the perspectives of the stakeholders. To ensure an effective operation of sustainable management and achieve the company's vision and short, medium, and long-term strategic objectives effectively, we included ESG Sustainable Development in the Directions Governing Performances of Senior Managers of Chunghwa Telecom, integrated in the key performance indicators for the corporate performance, departmental performance, and individual performance.

The nomination and selection of the directors of Chunghwa Telecom is conducted pursuant to the relevant laws and regulations as well as the Articles of Incorporation of Chunghwa Telecom Co., Ltd. With a candidate nomination system in force, the candidates are nominated by the Board of Directors and the shareholders that meet the statutory shareholding ratio requirements. The director nomination announcement and nomination thereof are conducted in accordance with legal procedures. The qualification and selection of independent directors are conducted in compliance with the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies" and in line with Article 24 of Chunghwa Telecom Co., Ltd. Code of Corporate Governance.

- \* Directors Election Regulations of Chunghwa Telecom Co., Ltd [🔗](#)
- \* Code of Corporate Governance for Chunghwa Telecom Co., Ltd [🔗](#)

Continuing Education of the Board of Directors: Please refer to p.87-90 of the Company's 2022 Annual Report.

## CHT Board of Directors

	♂	♀
30-50 Years Old (person)	1	0
Above 51 Years Old (person)	9	3

Chunghwa Telecom received a letter from the major shareholder, Ministry of Transportation and Communications (MOTC) on May 2, 2023, which notified the discharge of Mr. Chi-Mau Sheih from the position of the representative of corporate director, rendering a total of 12 directors on the board before another director assigned by the MOTC. Please refer to Appendix 2: GRI 2-9 Governance Structure and Composition of this Report for more details.

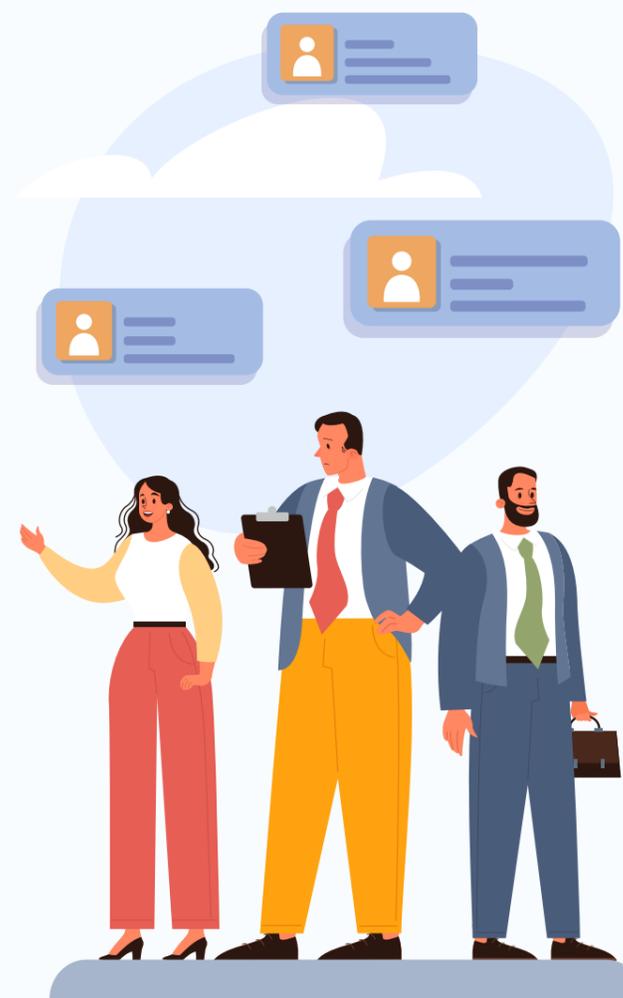
## Board Diversity Policy

Chunghwa Telecom implements diversity on the Board of Directors and recruits talents primarily based on skill sets. Selection of directors is not limited to any particular gender, age, nationality, culture or ethnicity. Directors are expected to have outstanding quality, industry experience and expertise to complement the Board.

## Linking Compensation to Sustainability Performance

All Chunghwa Telecom directors are nominated by the Board of Directors and shareholders holding the legally required percentage of shares. In order to link the performance of directors with the company's sustainability vision and short-, medium- and long-term strategic goals, to evaluate their core competencies and strengthen their responsibilities, to link performance and remuneration, and to retain and attract key talents to join the board of directors, the Compensation Committee has planned to include the ESG sustainable management strategic goals as an indicator of directors' remuneration in accordance with the company's articles of incorporation and other relevant regulations. The implementation of this measure coupled with the substantial effect of the variable compensation plan is a win-win for the Company and its directors.

Director compensation: Please refer to p.36-38 of the Company's 2022 Annual Report.



## Governance Procedures of the Board of Directors for the ESG Topics in 2022

- 1 A total of 9 meetings of the Board of Directors were convened, with Material ESG topics presented in 4 of these meetings
- 2 Material ESG topics presented on the board meetings:
  - The issuance of Sustainability Bond of NT\$3.5 billion worth, which is the first sustainability bond issued by a domestic telecom operator and the largest sustainability bond issued by a domestic non-manufacturing company, aiming to support investments in environmental protection and social development
  - Strategies in response to Taiwan's Pathway to Net-Zero Emissions in 2050 and report on the compliance with the GHG inventory disclosures required by the regulatory agencies at home and abroad
  - Report on the plan for the GHG inventory and verification schedule of the parent company with the execution progress tracked quarterly in accordance with the Sustainable Development Roadmap for TWSE- and TPEX-Listed Companies, Financial Supervisory Commission (FSC)
  - Declaration of the Company's Participation in the RE100 Initiative, Commitment to Electrify Official Vehicles for Engineering Purposes, and Increase Use of Renewable Energy in IDCs
  - Setting of carbon reduction targets and proposal of key ESG topics and the coping strategies thereof
  - Adjustment to the definition of female manager into "director level and above"
  - The linking of the variable compensation and accountability of senior managers with key ESG issues
  - Scale-up promotion of flexible working hours for the Company and its business groups



## Corporate Strategy Committee

The Board of Directors consists of seven directors (including four independent directors), who are responsible for important operational issues, such as medium- and long-term development goals and strategies, major investments and mergers and acquisitions, significant organizational adjustments, acquisition or return of operating licenses, preparation or revision of annual operating plans and budgets, capital increases or decreases, and other important strategic issues (including ESG energy conservation, carbon reduction and environmental sustainability), etc. The review conclusions of the meetings shall be submitted to the Board of Directors for resolution as necessary.



## Audit Committee

Consists of all independent directors, who are responsible for the supervision of the fair presentation of the financial statements of the Company, the selection (discharge), independence, and performance of certified public accountants, the effective enforcement of the internal control of the Company, the corporate risk management mechanism, and the compliance with relevant laws, regulations, and standards.



## Compensation Committee

Consists of three independent directors, who are responsible for the evaluation of the performance of directors and managers, and for determination of appropriate compensation policies, system standards, and structures. Also, the compensations of directors and managers are evaluated and stipulated on a regular basis.

1. The committees above are all accountable for the decision-making/supervision of "impacts on the economy, environment, and people" of CHT.
2. For the content reported pursuant to GRI 2-9 Governance structure and composition, please refer to p.160-161, Appendix.

### Avoidance of Conflict of Interest

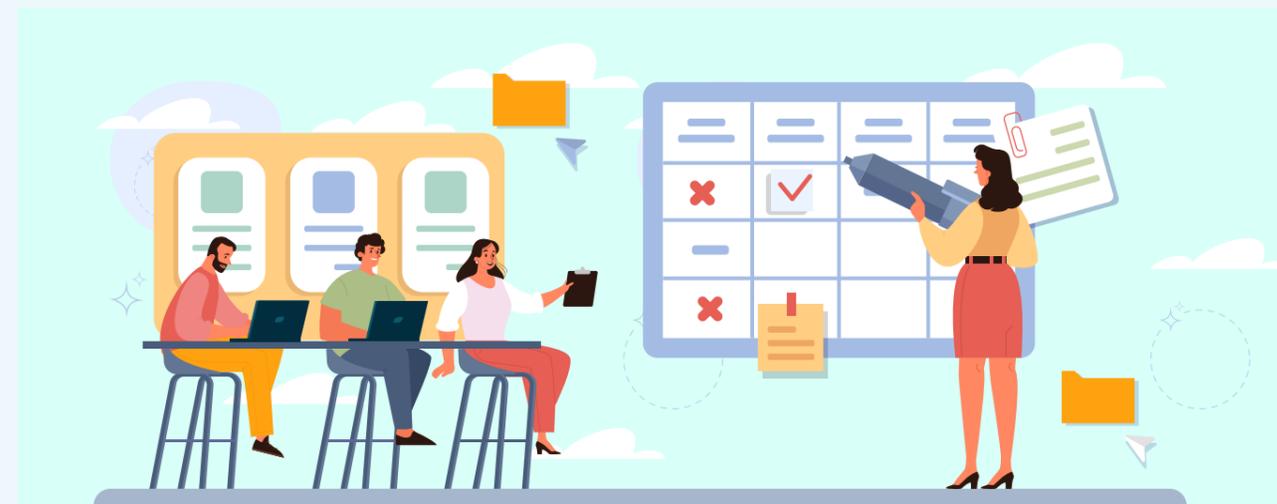
To avoid conflict of interest at the highest governance body, our Organization and Talent Development Department is responsible for assisting the Board of Directors and the management in the stipulation, supervision, and execution of the ethical management policies and guidelines for conduct, which is to report to the Board of Directors regularly (at least once a year) to assist the Board of Directors and the management to check and assess whether the preventive measures established with the implementation of ethical management operate effectively. With the high moral standards for self-discipline of the directors and the operation of a comprehensive mechanism, there has not been any conflict of interest occurred to the Board of Directors of Chunghwa Telecom since its establishment.

The directors, managers, and employees are obliged to act in the best interests of Chunghwa Telecom to avoid any conflict of interest. In the event of the objectivity of an individual comes into question due to the interests of the individual, or the spouse, children, or relative within the second-degree kinship thereof, he or she is to report such to the direct supervisor thereof or the Organization and Talent Development unit of the Company. Where an individual realizes that certain important transactions or relations may lead to personal conflict of interest, he or she is to immediately discuss such with the direct supervisor thereof or the Organization and Talent Development unit of the Company.

### 1. Prevention and Mitigation Process

The policy to prevent conflict of interest has been stipulated at Chunghwa Telecom, along with appropriate channels available for directors, managers, and other stakeholders to proactively account for whether they have potential conflict of interest with the Company. If any individual or a legal entity represented thereby is an interested party with respect to any agenda item of a board meeting, he or she shall state the important aspects of the interested party relationship at the meeting. When the relationship is likely to prejudice the interests of the Company, he or she may not participate in discussion or voting on such agenda item and shall enter recusal during discussion and voting on that item and may not act as another director's proxy to exercise voting rights on that matter. In the case of lifting the non-competition restriction against a director, in addition to submission of the matter to the Board of Directors for discussion, he or she is required to account for the important aspects of such act to the shareholders' meeting and obtain the permission therefrom.

The Operations of the Board of Directors: please refer to p.46-48 of the Company's Annual Report.



### 2. Disclosure on conflicts of interest

#### Cross-board memberships

- Lifting of the Non-competition Restrictions on the Candidates for the 10th Board of Directors of the Company, Session 18, 9th Board of Directors.
- Lifting of the Non-competition Restrictions on the representative of juridical person directors, Session 2, 10th Board of Directors.

#### Cross-shareholding with suppliers and other stakeholders

The "Procedures for Acquisition or Disposal of Assets of Chunghwa Telecom Co., Ltd." has been stipulated in line with the government regulations. The related parties are identified in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and the list of such is disclosed online.

Pursuant to the procedures, the Company may not enter into a transaction contract or make a payment until materials pertaining to a transaction of an amount of NT\$300 million or more with related party are submitted and approved by the Audit Committee and afterward by the Board of Directors. In addition, the relevant information should be announced on the website designated by the Financial Supervisory Commission.

#### Existence of controlling shareholders

The controlling shareholder of Chunghwa Telecom is the Ministry of Transportation and Communications, with whom there is no conflict of interest that leads to damage to investors' rights.

#### Related parties, their relationships, transactions, and outstanding balances

The disclosure requirement is met by the notes on the related parties in the financial statements in the Annual Report for the Shareholders' Meeting.

Relevant information on other conflicts of interest:

1. Code of Corporate Governance for Chunghwa Telecom Co., Ltd. [\[Link\]](#)
2. Please refer to p.58, 91 of the Company's 2022 Annual Report.

### Performance Evaluation for the Board of Directors

To implement corporate governance and enhance the functions of the Board of Directors, performance objectives are set forth to improve the operation of the Board of Directors. CHT sets the Regulations Governing the Performance Evaluation of the Board of Directors of Chunghwa Telecom Co., Ltd. that details rigidly of the performance evaluation of the Board of Directors. The self-evaluation for the Directors on the Board is conducted on an annual basis, while the performance evaluation by external, independent, professional institutions or external teams of experts and scholars is carried out once every 3 years. In 2022, the self-assessment of the performance of directors, the self-assessment of the performance of the Board of Directors, and the self-assessment of the performance of functional committees were completed, with the external assessment carried out by Taiwan Institute of Ethical Business. The results of the independent external assessment include:

1. Professional functions and decision-making efficiency of the Board of Directors: There are 5 seats of independent directors, with relevant backgrounds in legal, communications, artificial intelligence, finance, and accounting, who are capable of providing diversified opinions from different perspectives. All the members on the Board of Directors indicated that there were opportunities for thorough discussions in meetings.
2. Oversight for the internal control of the Company by the Board of Directors: The Audit Committee and the Corporate Strategy Committee are instituted to discuss important issues such as development strategies, operating status, and major transactions on a regular basis. In addition, the Risk Management Committee is in place at the management level to monitor the overall risk exposure of the Company under assessment. The establishment of these committees enables the members on the Board of Directors to more effectively capture the potential risks faced by the Company under assessment as a whole, so as to strengthen risk management and oversight.
3. Attitude towards sustainable management: The Sustainable Development Committee is instituted. The Chairman and managers jointly promote the implementation of sustainable development-related action plans and report to the Board of Directors on the implementation of the sustainable strategies, which helps the Board of Directors understand the sustainability strategy implementation as well as the ongoing promotion and oversight. In addition, ESG-related indicators are also incorporated as the performance appraisal indicators of managers to strengthen the implementation of ESG programs.

\* Regulations Governing the Performance Evaluation of the Board of Directors of Chunghwa Telecom [↗](#)

\* Results of the 2022 Board Performance Evaluation [↗](#)

### Protection of Shareholders' Interests

Chunghwa Telecom has made changes and revisions to several systems and measures based on a corporate governance mindset. These include e-voting, voting by poll and the disclosure of meeting resolutions made on the Company official website. These diverse voting channels allow shareholders to exercise their rights easily and this has made corporate governance more effectively.

### Shareholder Structure of Chunghwa Telecom

Unit: Shareholding ratio

Government	Financial Institutions	Other Legal Entities	Individual	Foreign Institutions and Individuals
40.86%	15.80%	8.60%	17.24%	17.50%

Data date July 3, 2022



## Creating Value for Shareholders

Chunghwa Telecom generated consolidated revenues totaling NT\$216.7 billion in 2022. We are committed to our core business and active innovation, making substantial and significant contributions to the industry and the country, and creating maximum value for shareholders. Revenue from mobile services increased thanks to customers upgrading to 5G services and the increase in the number of mobile customers. ICT projects were completed as scheduled in line with the quality requirement, which benefited the revenues from tender projects. The overall revenue in 2022 has grown compared to that of 2021. Net income attributable to the parent company amounted to NT\$36.5 billion while EPS reached NT\$4.70 in 2022.

Chunghwa Telecom business operations have been stable for years, and we pay our taxes honestly following the law. In 2022, Chunghwa Telecom income tax was the equivalent of an effective tax rate of 19.54%. The deviation from statutory 20% tax rate was mainly attributed to the provisions of Article 42 of Income Tax Act, in that net dividends or net earnings recognized from local invested businesses are exempt from income tax. In addition, the application can also be made for tax preference pursuant to Article 10 of the Statute for Industrial Innovation as well.

### Economic Performances



Total number of employees in the Company including subsidiaries  
**32,123 persons**

Unit: NT\$ million dollars

Paid-up capital	77,574
Revenues	216,739
Operating costs	136,717
Operating expenses	33,290
Employee salaries and benefits	45,672
Dividends paid to shareholders	35,746
Income tax paid	8,397
Expenses of social investment	840

**Retained economic value 2,589**

Notes:

1. Certain payments to the government, such as government fines, are included in the operating costs and expenses.
2. Employee salaries and benefits: operating costs and expenses included.
3. Expenses of social investment: costs and expenses not for profit, nor for sales or marketing in nature, are included.
4. Retained economic value = revenues – operating costs – operating expenses – income tax paid

## Highest Moral Standard

To strengthen ethical operation management, we have set up the "Ethical Corporate Management Best Practice Principle", and "Code of Ethics of Chunghwa Telecom Co., Ltd.", and has deepened the publicity and education of employees and external stakeholders (supply chain partners). We also obtained Certificate of Conformity for Code of Conduct (CoC) from SGS-Taiwan for four years in a row.

In 2022, the promotion and test of regulations in the Ethical Corporate Management Best Practice Principles were implemented from September 12 to October 7. At the same time, the education courses on "Code of Conduct" and "Ethical Corporate Management Best Practice Principles" were administered to all employees via e-learning. As for reasons otherwise, except Maternity Leave, Occupational Sickness Leave, and Long-term Sick Leave, 19,596 employees have 100% completed the test. A specific management mechanism is in place to ensure that all employees are engaged in operational activities with the highest ethical standards. Under the control of a good mechanism, there were no major violations of regulations in 2022.

In terms of system, the ethical corporate management policy is integrated with the performance appraisal of employees and human resource policy. A specific, effective reward and penalty system has been established. "Guidelines for Personnel Evaluation" and "Standards Governing the Administrative Rewards and Discipline of Chunghwa Telecom Personnel" have been stipulated as the reference in employee performance appraisal. In the event of matters worthy of reward or actions to be disciplined, the rewards or disciplinary actions will be issued promptly in line with the regulations.

Beginning in 2022, new fixed term contract employees were required to undergo the education courses on "Code of Conduct" and "Ethical Corporate Management Best Practice Principles".

Item	Content
Policy commitment of "responsible business conduct"	<ul style="list-style-type: none"> <li>Ethical Corporate Management Best Practice Principles for Chunghwa Telecom Co., Ltd., Code of Ethics of Chunghwa Telecom Co., Ltd. and Procedures for Ethical Management and Guidelines for Conduct for Chunghwa Telecom Co., Ltd. regulates all employees engaged in all activities with the highest standard.</li> <li>Chunghwa Telecom Anti-Corruption and Anti-Money Laundering Policy establishes clear anti-corruption and anti-bribery guidelines to govern all business interactions based on the principle of zero tolerance.</li> <li>Chunghwa Telecom Human Right Policy, which emphasizes and implements the protection of human rights issues.</li> </ul>
Referenced Government Documents	Ethical Corporate Management Best Practice Principles for TWSE/GTSM Listed Companies, Guidelines for the Adoption of Codes of Ethical Conduct for TWSE/GTSM Listed Companies, etc.
Whether due diligence was conducted	We perform due diligence in accordance with relevant policies, such as the "Chunghwa Telecom Human Right Policy", which provides for regular internal due diligence such as human rights assessments to enhance the human rights awareness of employees and stakeholders.
Whether precautionary principle was applied	"Risk Management Policy" and "Directions Governing the Risk Management Operation of Chunghwa Telecom Co., Ltd" were established. Using risk matrix to identify and analyze relevant opportunities and risk events for effective risk control.
Whether the norm respects Human Right	Relevant policies explicitly declare a commitment to respecting the human rights of the stakeholders they encompass. For example, the implementation of the Human Right Policy ensures the protection of human rights issues for employees, suppliers, and other stakeholders.

In terms of in-depth exercise of the policies for integrity and ethics, the internal and external methods are adopted in parallel to ensure the implementation of "responsible business conduct" in the industrial value chain. Relevant measures include:

### Internal (Employees)

- The Organization and Talent Development department is the responsible unit for ethical management, responsible for systems formulation, control and supervision, and reporting on board meetings.
- Through the internal control and audit system, the compliance and implementation of the measures related to the ethical management of various units are reviewed on a regular basis.
- The corporate ethical management regulations are promoted, and relevant tests are conducted on a yearly basis. All employees are required to sign the statement of ethical business and Code of Conduct and take relevant training courses.
- Education and promotion: A series of training courses are designed to cover relevant contents including Code of Conduct and Ethical Corporate Management Best Practice Principles, along with promotion to employees via the e-learning platform and with relevant cases.
- All institutions have the personnel from the Organization and Talent Development department stationed to respond to inquiries from employees concerning the policies or practices of business ethics.

### External (Business Partners)

- Business partners are required to agree to abide by Chunghwa Telecom Supplier Sustainability/ ESG Guidelines and Code of Conduct.
- The execution of anti-corruption and policies of business ethics are assessed through the ESG Status Self-Assessment Form.
- SGS-Taiwan is commissioned to conduct the second-party audit on the compliance with relevant laws, regulations, and standards by contractors and suppliers on a regular basis to probe into the level of implementation.



### Companies Invested

- Due diligence is carried out, covering topics like human rights, anti-corruption, code of conduct, etc., and corrective measures are explained on a yearly basis.
- Policies in relation to the Code of Conduct and the Ethical Corporate Management Best Practice Principles of Chunghwa Telecom are promoted to subsidiaries and companies invested for a collective practice of the concepts.

Multiple communication channels, along with a specific whistleblower system, are in place for possible negative impacts (including business ethics) at Chunghwa Telecom. Pursuant to the relevant internal regulations, items as follows are faithfully executed:



Set up and announce the internal and external independent whistleblowing mailboxes and hotlines, keep the identity of and the content reported by whistleblower confidential, and allow anonymous whistleblowing.

- Internal:** The employee grievance hotline made available in the Employee Section on the EIP
- External:** Reporting channels disclosed on corporate websites. [🔗](#)



Appeal Review Committee has been established to handle appeals concerning discrimination and other inappropriate conducts. There are 5 members on the committee, including 3 female members, accounting for over a half of the seats.

**Negative Impact Remediation Procedures**

We have multiple communication channels in place to ensure that all stakeholders can express their opinions as well as file complaints and reports through various channels. All negative impacts are properly responded, handled, and remedied. Also, the mechanisms for communication, coordination, and response are strengthened on the basis of the feedbacks from stakeholders to ensure a better alignment with the needs of stakeholders.

- Operational issues: In response to major public opinions or events of material information, the information is promptly presented to the Headquarters for analysis upon reception thereof, which is forwarded to units pertaining to the events to perform fact check and provide materials. After a resolution adopted by the management, the decision to issue a press release, call a press conferences, release material information, or respond to the media is made in line with the actual needs to disclose information to the public.
- Consumer disputes: Consumer disputes may be submitted to the Telecommunications Consumer Mediation Center (<https://web.tcmc.tw/>) or referred to the window of telecom operators, so as to properly assist in the mediation of consumer disputes in a convenient and non-litigation manner.
- Labor-management relations: The chairman of the workers' union, for example, may attend the business report meeting, and senior managers are invited to participate in major labor-management consultation meetings to ensure a full communication between labor and management.

**Prevention of Corruption**

Chunghwa Telecom stand by the principle of zero tolerance for corruption. The Chunghwa Telecom Anti-Corruption and Anti-Money Laundering Policy has been stipulated to regulate all operations and business interactions. The subjects covered in the policy include board directors, employees, suppliers, etc. The Chief Administrative Officer, CAO serves as the person in charge, responsible for supervising and guiding on issues related to business ethics and corruption as well as regularly reporting the results of supervision to the Board of Directors. We track the progresses of and conduct risk assessments on the implementation of the Ethical Corporate Management Best Practice Principles and Anti-corruption policies on a regular basis, covering 100% of all our 28 institutions and operating sites. Also, no major corruption risks are identified based on the risk assessment.

We also demand stakeholders conducting business with Chunghwa Telecom, such as suppliers and contractors, to abide by ethical standards equivalent to that of the CHT employees. Besides, through the internal audit mechanism and the secure, rigorous, and confidential employee whistleblowing mechanism, we vigorously examine any possible illegal act of internal and external stakeholders. In 2022, a total of 74 complaints and reports were received, all of which were handled and closed in accordance with pertaining regulations.

There was no violation of corruption, bribery, discrimination, harassment, customer privacy or personal data, conflict of interest, money laundering, and insider trading specified in the Code of Conduct in 2022. A total of 6 other disciplinary cases were investigated and dealt with in accordance with operational regulations and handling principles, in order to guide the employees to act in accordance with the rules and regulations and to protect the discipline of the Company and shareholders' rights.

\* Chunghwa Telecom Anti-Corruption and Anti-Money Laundering Policy [↗](#)

**Transparent Information Disclosure**

The corporate governance of Chunghwa Telecom places great emphasis on integrity, accountability, and trustworthiness. We utilize a variety of means such as the corporate website, a Market Observation Post System, Annual Reports, ESG 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 the information disclosed. As of the ninth Corporate Governance Evaluation in 2022, we were recognized as the top 5% for the eighth time as well as the top 10% in "The electronics industry with a market value of 10 billion TWD or more" of the TWSE- and TPEX-listed companies in the Evaluation. In addition, The MSCI ESG rating was upgraded to AA in May 2023!

With regard to legal compliance disclosure, Chunghwa Telecom abides by the regulations in the "Taiwan Stock Exchange Corporation Procedures for Verification and Disclosure of Material Information of Companies with Listed Securities." Any penalty by the competent authority or any other administrative action, or significant impact to finance or business, is deemed as a material incident (penalties and administrative actions included), which shall be disclosed on the "Market Observation Post System." In 2022, there was no material information concerning Chunghwa Telecom subject to penalties of competent authority or any other administrative action.

**The Internal Audit System**

The internal audit helps the Board and managers to check the effectiveness of the internal control systems and operations. It is located under the Board and conducts business audits in accordance with the regulations and policies. The annual audit plan is formulated based on the results of the risk assessment made at the end of every year. After the approval of the Board, the plan is sent to the competent authorities via the Internet information system for their reference.

\* Organization and functioning of Chunghwa Telecom's internal audit unit [↗](#)

**Strengthen Business Management**

In order to enhance the quality of our business marketing, build consumer trust in the CHT's brand, and maintain a good reputation and corporate image, we have formulated the "Business Marketing Standards" to ensure that our business marketing is conducted in accordance with the regulations and requirements of the law and the competent authorities. As a result of our efforts to comply with these regulations, we have not been penalized by the Fair Trade Commission in 2022.

**Supporting Global ESG Initiatives and Guidelines**

We voluntarily follow the principles and norms of the United Nations Global Compact. In terms of human right, we respect and uphold all internationally recognized human rights and do not engage in any disregard or abuse of human rights; in terms of labor standards, we uphold the freedom of association of our employees, recognize and uphold the right to collective bargaining between employers and employees, strive to eliminate any form of labor misconduct, and eliminate discrimination in employment.

Chunghwa Telecom publicly discloses its human right policy and establishes a complaint and handling mechanism to continuously incorporate human right issues into the company's policies and management practices. Telecommunication Training Institute, Chunghwa Telecom offer special classes every year to provide lectures on human rights issues, and plans additional courses and training when labor-related laws and regulations are revised or policy issues are adjusted. 6 courses were held in 2022. The course hours were 16 in total with 276 person-times joined. The human rights introduction chapter will be included in the Next Generation Growth Camp. Additionally, in 2023, human rights-related issues will be incorporated as one of the topics in the ESG Sustainable Learning Map.

\* Chunghwa Telecom Human Right Policy [↗](#)



# ESG Management

Chunghwa Telecom introduced the CSR management mechanisms and established the "CSR Committee" in 2006. In 2021, the "CSR Committee" was restructured as the "Sustainable Development Committee" as the response to the trend of sustainable development. The CHT Chairman and the President serve as the Chairperson and Vice Chairperson of the Sustainable Development Committee, representing the Board of Directors in formulating and reviewing sustainable development strategies, policies, and goals. They also oversee the annual ESG performance and regularly report to the Board of Directors. Based on the guidance provided by the Board, appropriate actions, including ESG organizational adjustments, are taken.

Our vision for sustainable development is "Greening & Decarbonization, Digital & Empowerment, Integrity & Transparency." By integrating unique corporate resources and leveraging core competencies, Chunghwa Telecom plans and implements a comprehensive ESG action plan through four subcommittees under the ESG committee. With the spirit of "Always Ahead," we aim to stay at the forefront by developing and executing ESG initiatives in various aspects.

\* Sustainable Development Best-Practice Principles of Chunghwa Telecom Co., Ltd. [↗](#)

## ESG Target by 2030

### Environment



#### Targets and Strategies by 2030

**Strategy:** raising the efficiency of energy and developing renewable energy

**Target:**

1. 50% cut of carbon emissions compared to that of 2020
2. 100% renewable energy used in IDCs

#### Progress in 2022

**Target:**

1. 76,000 metric tons (9.6%) cut of carbon emissions compared to that of 2020
2. 18.84 million kWh (9.2%) renewable energy used in IDCs

### Society



#### Targets and Strategies by 2030

**Strategy:** Enhancement of gender equality consciousness, increase the proportion of female executives, establishment of education support ecosystem, creation of product marketing teams in the rural areas

**Target:**

1. Ratio of female managers (Section Chief or above) raised to 30%
2. Cumulative 22,000 individuals from the disadvantaged groups in the rural areas benefited from the digital empowerment
3. Cumulative 19,800 SMEs with digital environments or new business models established

#### Progress in 2022

**Target:**

1. Ratio of female managers raised to 21.5%
2. Cumulative 8,800 individuals from the disadvantaged groups in the rural areas benefited from the digital empowerment
3. Cumulative 29,000 SMEs with digital environments or new business models established

### Governance



#### Targets and Strategies by 2030

**Strategy:** Improvement of ESG rating level and linking ESG indicators to executive compensation

**Target:**

1. "AA" of MSCI ESG Ratings attained by 2025 ; "AAA" of MSCI ESG Ratings attained by 2030
2. 30% of the variable compensation

#### Progress in 2022

**Target:**

1. "A" of MSCI ESG Ratings attained
2. 10% of the variable executive compensation links ESG indicators

## Sustainable Development Committee

The "Chunghwa Telecom Sustainable Development Committee" was established for expanding sustainable benefits of our core competence and implementing ESG vision as a starting point to promote the sustainable development of the industry and society. The Committee convenes every half a year. Under the CHT Sustainable Development Committee, "Environmental Group", "Social Group 1", "Social Group 2", and "Governance Group", which are supervised by four SEVPs of the Headquarters. The President calls an inter-group meeting quarterly to regularly review ESG strategies and action plans, and to confirm the achievement of ESG goals and targets.

<b>Representative</b>	<b>Shui-Yi Kuo, Chairman</b>
<b>Mechanism</b>	Sustainable Development Committee is responsible for coordinating each plan and supervising the progress of the policies, systems and related management guidelines approved by the Board of Directors. It also quarterly reports the relevant issues, the results of communicating with stakeholders, results of sustainable development progress, and achievements of goals to the Board.
<b>Execution</b>	<ul style="list-style-type: none"> <li>• The Corporate Communications Department and Corporate Planning Department are designated as Secretariat. Externally, the Secretariat is responsible for the ESG Report and information disclosure, various ratings and awards, exhibition participation and media communication; internally, it coordinates inter-group cooperation, target management/review and tracking, and performance evaluation design.</li> <li>• ESG groups set the annual targets and Objective Key Results (OKRs) and promote and implement various sustainable development works together with business groups and the respective institutions.</li> <li>• The committee and interim ESG achievements are reported to the Board of Directors on a quarterly basis. The guidance and opinions provided by the directors on various issues are tracked by the Secretariat of BoD through meeting discussions, and the relevant departments are requested to report on the progress of implementation.</li> </ul>
<b>Meeting Frequency</b>	Once every half a year for Committee meeting; quarterly for the inter-group meeting; monthly for the group meeting
<b>Report Approval</b>	Reports are submitted to Chairman for review pursuant to the official document submission procedure and approval upon review by the SEVPs at the Headquarters.
<b>Execution Results in 2022</b>	<ol style="list-style-type: none"> <li>1. The GHG inventory across the entire value chain (Scope 1-3) in 2022 completed</li> <li>2. The internal carbon pricing system established</li> <li>3. The Science-based Targets (SBTs) submitted for review and the application to join RE100 filed</li> <li>4. Preferential childcare policies: ① childcare allowance for employee with child aged 6 or younger ② 1 work hour reduced per day for employee with child aged 3 or younger ③ early childhood education center at workplace</li> <li>5. The flexible working hour extended from 1 hour to 2 hours</li> <li>6. "Digital Empowerment Incubation Program" hand in hand with World Vision Taiwan and Microsoft Taiwan to plan for the children of disadvantaged families in Lanyu</li> <li>7. Linking ESG with 10% of the variable compensation of senior managers</li> <li>8. Issuance of sustainability bond worth NT\$3.5 billion</li> <li>9. "Senior Management ESG knowledge Courses" organized to deliver ESG education and training courses to senior managers</li> <li>10. A total of 46 employees enrolled in the "Corporate Sustainability Manager Certification Training Program" and certified</li> </ol>

Chairman Shui-Yi Kuo assumed office on May 5, 2023.



## Internalization and Communication of ESG

Chunghwa Telecom has employees all over in Taiwan. In order to ensure that all employees understand the spirit of corporate sustainability, implement it and provide timely feedback, we have established multiple communication channels within the Company to promote relevant issues, and combined with the performance evaluation mechanism. We have translated the concept of sustainability into action and implemented it in our daily operations.



Channel	Item	Content
Communication within Senior Management	Senior management meeting	Material ESG issues are discussed in the senior management meeting annually, and the resolution indicates our improvement and direction.
Communication with Employees	EIP Portal	An internal website/system is provided for employees to submit suggestions, innovative ideas, and other feedback to encourage employee participation. An employee platform is also established, which includes an open channel for complaints and whistleblowing, as well as communication channels for exchanging messages and information.

Channel	Item	Content
Employee Training	Environmental training	In 2022, 5G Plastic Free environmental education volunteer training was conducted in Taichung and Kaohsiung, aiming to promote the concept of environmental sustainability.
	ESG training	Every year, we implement education programs related to corporate sustainability, and follow international trends by hiring external consultants to teach courses and exchange thoughts.
	New employee training	New employees undergo digital pre-service training and the Growth Camp that include corporate values, personnel systems, work rules, and labor-management relationships.
	e-Learning	We post relevant training courses and information on the e-Learning system that can be downloaded and studied freely by the employees.
Annual Evaluation	Administrative sustainability performance	Including various sustainable development goals in the annual performance evaluation serves as the basis for assessing the effectiveness of unit-level promotion.
	Online quiz of ethics regulations	We conduct annual training and testing on the Code of Conduct, Ethical Corporate Management Best Practice Principles and the Prevention of Insider Trading.
	Report and appeal	Employees violate the Code of Conduct and Ethical Corporate Management Best Practice Principles will be dealt with in accordance with the Company's regulations.
Others	ESG Report workshop	Internal training on new ways of preparing reports is held from time to time to enhance employees' awareness of ESG trends.
	Official website and social media	Set up "Sustainability/ESG" section on the official website and Chunghwa Telecom's YouTube channel and set up a FB fanpage.



# 2 SUSTAINABILITY VALUE STRATEGY

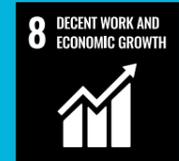
SIX MAIN CAPITALS CREATE SUSTAINABILITY VALUE	34
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CREATING SUSTAINABLE VALUE	36



The result of our ESG input has been the creation of profit in corporate operation and a maximization of shareholder value. Our shareholder structure allows us to carry on a broad citizen responsibility. Our position in the ICT industry and the innovative products and services we provide give us the opportunity to use technology and innovation to control the risks and grasp opportunities. Our innovative products and services have a positive economic influence on the value chain, create sustainable value for the industry and the public and greatly minimize the negative impact on the environment.



The SDGs CHT contributes to in this chapter:



Six Main Capitals -

**"Financial Capital, Human Capital, Intellectual Capital, Manufactured Capital, Social Capital and Natural Capital"**

Vision-



**"Digital economy transformation, Industrial innovation, Talent startup, Happy corporation, Considerate services, Transform into green corporation thoroughly, and Connect · Hope · Technology"**



Five Major Forces -

**"The Motivator of the Digital Economy, The Creative Industry Pilot, The Happiness Value Protector, The Green Corporation Pioneer, and The Social Value Guide"**

## Five Major Forces Drive the Sustainable Cycle

We utilize our ICT corporate core competence and integrate with ESG to establish the five main forces, "The Digital Economy Motivator, The Creative Industry Pilot, The Happiness Value Protector, The Green Corporation Pioneer, and The Social Value Guide." We think that the input in these five main fields will help accomplish a society with digital inclusion and the future of sustainability development.



### The Happiness Value Protector



#### Prospect Happy Enterprise and Considerate Services

- Strategy**
- Create a healthy, happy workplace
  - Protect information, labor, and human rights
  - Provide quality, innovative services



### The Green Corporation Pioneer

#### Prospect Total Transform into a Green Enterprise

- Strategy**
- 5G (Green) Actions
  - Establish green, low-carbon supply chains

### The Creative Industry Pilot

#### Prospect Industrial Innovation and Talent Entrepreneurship

- Strategy**
- Invest and incubate startups
  - Encourage innovation and entrepreneurship internally



### Digital economy transformation

#### Prospect Digital economy transformation

- Strategy**
- Become a leading brand of 5G telecom services
  - Inspire innovative applications; create new business models

## Six Main Capitals Create Sustainability Value

## Sustainability Value



### Financial Capital

- Share capital **77,574,465** thousand
- Capital expenditures **31,534,946** thousand



### Human Capital

- Salary and welfare expenses **45,672,395** thousand
- Training expenses **460,843** thousand



### Intellectual Capital

- R&D expenses **3,774,309** thousand
- Marketing expenses **22,819,067** thousand

### Manufactured Capital

- Equipment installation and maintenance expenses **31,534,946** thousand
- Cell tower installation expenses **10,551,367** thousand



### Social Capital

- Social investment **839,678** thousand
- Universal telecom services **510,758** thousand



### Natural Capital

- Green procurement **17,605,000** thousand
- Environmental management expenses **348,375** thousand



### The Social Value Guide

#### Prospect Connect · Hope · Technology

- Strategy**
- 5I SDGs digital inclusion initiative
  - Corporate volunteer works everywhere

# Creating Sustainable Value

Our ESG issues and actions have created sound economic, environmental and social value since 2006. Although we have made serious efforts to adapt quantized data when setting-up and managing ESG plans, targets and performance, we have come to realize the difficulty of quantizing environmental and social values. There is still lots of true value that cannot be realized with the currency presently used as evaluation indicators of ESG performance.



## Shareholders / Investors

- EPS NT\$ **4.70**
- Consolidated revenue NT\$ **216.7** billion
- Selected for the Emerging Index of the Dow Jones Sustainability Index for the **11th** time

## Clients / Customers

- The customer satisfaction score is **7.91** (10-point scale)
- The customer hotline service satisfaction score is **4.75** (5-point scale)

## Supply Chain Partners

- **45** certified Gold-tier sustainable partners
- The local procurement percentage takes up **97%** of the total procurement
- The green procurement amount is NT\$ **17,605** million

## Employees

- Employee salary and benefits are NT\$ **45,672** million
- The average training hours per person are **57.65** hours
- The total training cost is NT\$ **460,843** thousand

- The occupational injury rate per thousand workers is **2.14** for men and **1** for women
- We have **631** employees with disabilities (the legal amount is **186** people)
- **57** indigenous employees
- The employee engagement score is **92.38** (out of 100)

## Communities / NPO

- We provide the disadvantaged groups' communication for **84,221** households
- The subsidy amount is NT\$ **156,268** thousand
- Coverage rate of the 12Mbps universal broadband service is over **91.59%**
- The voice assistant App for the blind has been viewed over **3.35** million times since 2013
- The location of digital good neighbor has accumulated to **89** places
- The total service hours of the corporate volunteer service are **48,797** hours

# 3 MATERIAL TOPICS AND IMPACTS

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We intend to provide all stakeholders concerning the future of Chunghwa Telecom as well as the telecom industry with a more comprehensive understanding of how Chunghwa Telecom has exerted its industry influence on ESG topics. This purpose has improved the quality of our actions and disclosures.



- Frequency: once a month
- Sign-off for materiality determining process/material topics review: representative of the Board of Directors
- Types of external stakeholders involved in determining material topics: consumers, suppliers, authorities, NGOs/NPOs

# Process for Determining Material Topics



## STEP 1

### Ongoing Collection / Identification of Various Sustainability Topics

The international trends on sustainability/ESG topics, disclosure frameworks/standards (e.g. GRI Standards, TCFD, and SASB), sustainability ratings (e.g. DJSI and MSCI), information of international benchmarks, and the relevant ESG news concerning Chunghwa Telecom in 2022 are collected on an ongoing manner. In line with the short-, medium-, and long-term ESG goals, topics of different aspects are identified, and relevant information is collected.



## STEP 2

### Significant Impact Evaluation

The feedbacks from external stakeholder assessments are integrated. The actual and potential impacts from topics on various ESG aspects are determined by different ESG groups via questionnaires and interviews as well as pursuant to the double materiality principle, followed by an assessment of the significance of impacts from respective topics.



## STEP 3

### Prioritizing

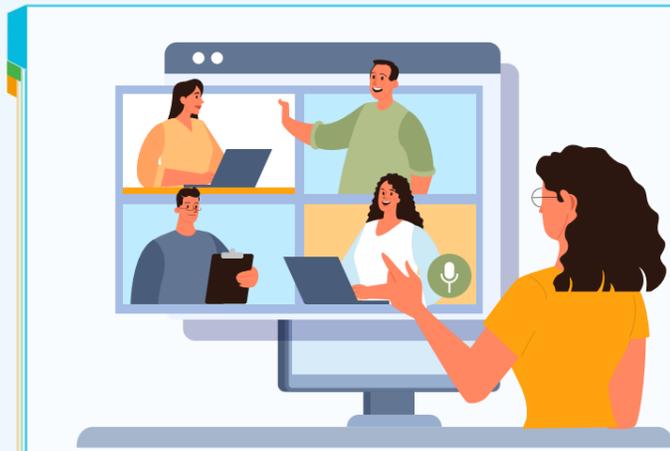
After the assessment of the significance of topics, the ESG groups conduct the final analysis and discussion of the topics on the basis of internal considerations, practices in the industry, and benchmarks, along with the opinions of external stakeholders. The "significance threshold" is set for prioritization of the topics with actual and potential impacts before mapping of the "ESG Materiality Matrix of the Year."



## STEP 4

### Result confirmation / Materiality matrix

After the ESG groups agree on the "ESG Materiality Matrix of the Year," it is submitted to the "Sustainable Development Committee (composed of the top ESG supervisors and the representative of the Board of Directors)" for review and sign-off to verify the results of the material ESG topic identification in 2022, which serve as a crucial reference for the disclosures in the annual ESG Report/action plan planning.



### Materiality Assessment – External Stakeholder Engagement Process

A variety of communication and engagement interfaces are in place at Chunghwa Telecom. Different types of external stakeholders like competent government authorities, academia, non-profit organizations, consumers, suppliers, etc. are invited to jointly identify and assess ESG-related topics and offer their valuable opinions so as to further broaden the vision of view for ESG topic determination. The engagement channels include:



#### Material topic survey on the corporate website:

The "Material Topic Assessment" section has been set up in the ESG section of the corporate website to invite external stakeholders to participate in the identification of ESG topics.



#### Stakeholder forums:

Dialogues and exchanges are facilitated through organizing and participating in forums/seminars themed with ESG.



#### Interviews and questionnaires:

The opinions and suggestions from external stakeholders are collected via interviews and questionnaires at various activities/conferences.



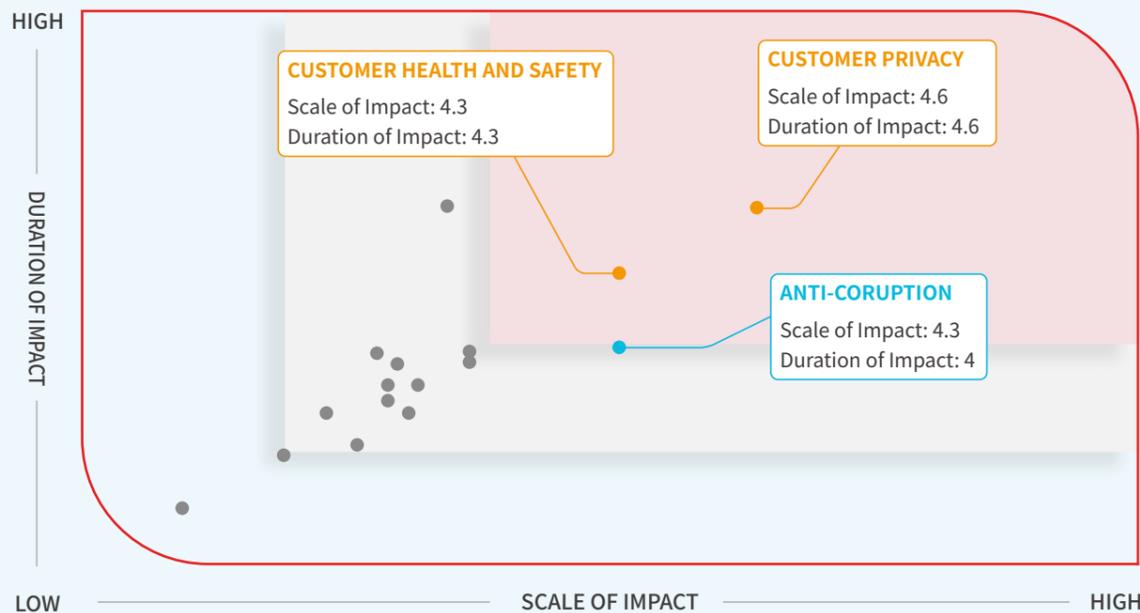
#### Community engagement:

External stakeholders are invited via social media to partake and put forward their judgements and opinions on ESG topics.

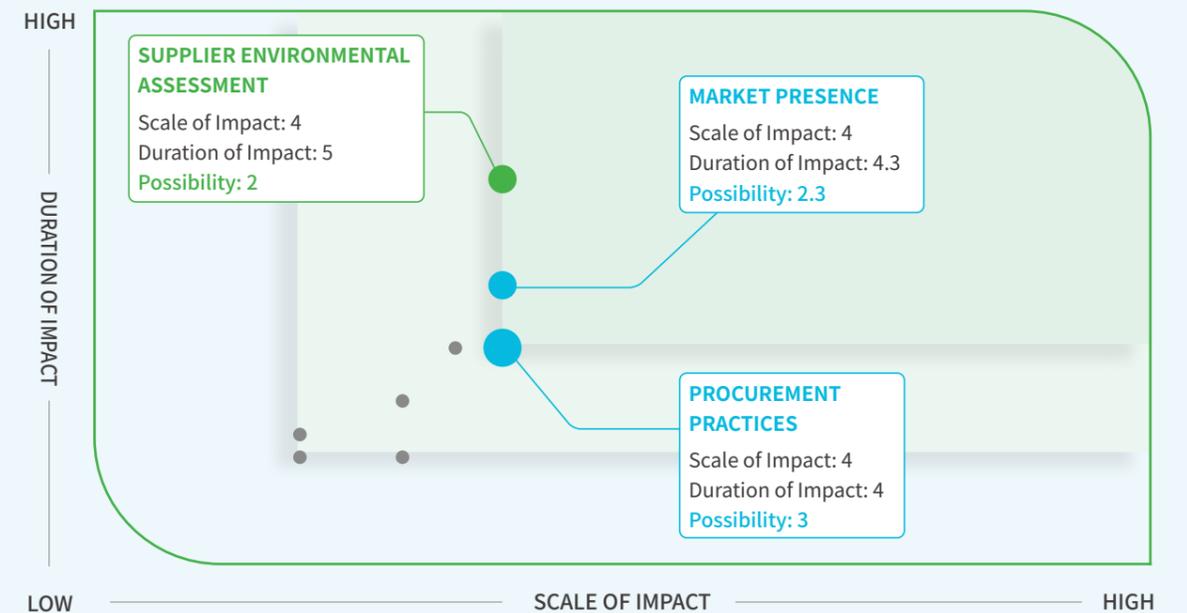
# 2022 Material Topics

Impact	Material Topics	Double Materiality		Cause of the Impact	Target of the Impact	GRI Standards
		• Impact on the Economy	• Impact on the Environment, Society, and People			
Actual Positive	Green and Low-carbon Products and Information Labels	Actively develop sustainable low-carbon products and services, conduct regulatory checks in terms of health and safety, and carry out communication and training for internal units to ensure the legal compliance and conformity of products, services, and marketing in order to protect the corporate reputation.	A complete health and safety assessment mechanism for products and services is in place (including the electromagnetic radiation testing service); products and services have been fully assessed and labeled to protect the consumer rights of the broader society.	Products and Services	Customers	Customer Health and Safety
	* Cybersecurity and Privacy Protection	Establish well-rounded cybersecurity management systems and mechanisms, and conduct regular audits and exercises, to ensure that customer privacy is secure and free from violation, elevating the corporate reputation.	Provide high-quality cybersecurity services and technical support, effectively expand and communicate correct cybersecurity concepts and technical services and assist industries and the general populace to effectively manage and control cybersecurity risks.	Business Activities Products and Services Business Relationships	Employees Customers	Customer Privacy
	Corporate Governance and Business Ethics	Consider anti-corruption risk as an overall risk of the Company for an effective assessment and management to minimize possible litigation and operational risks arising from corruption.	Establish complete anti-corruption policies and procedures to effectively manage corruption risks in the supply chain, reduce unethical business conducts in the industry, and elevate good social ethos.	Business Activities Business Relationships	Employees All Suppliers	Anti-corruption

**Actual Positive** The materiality threshold: 4 and above /  $\geq 4$



**Potential Positive** The materiality threshold: 4 and above /  $\geq 4$

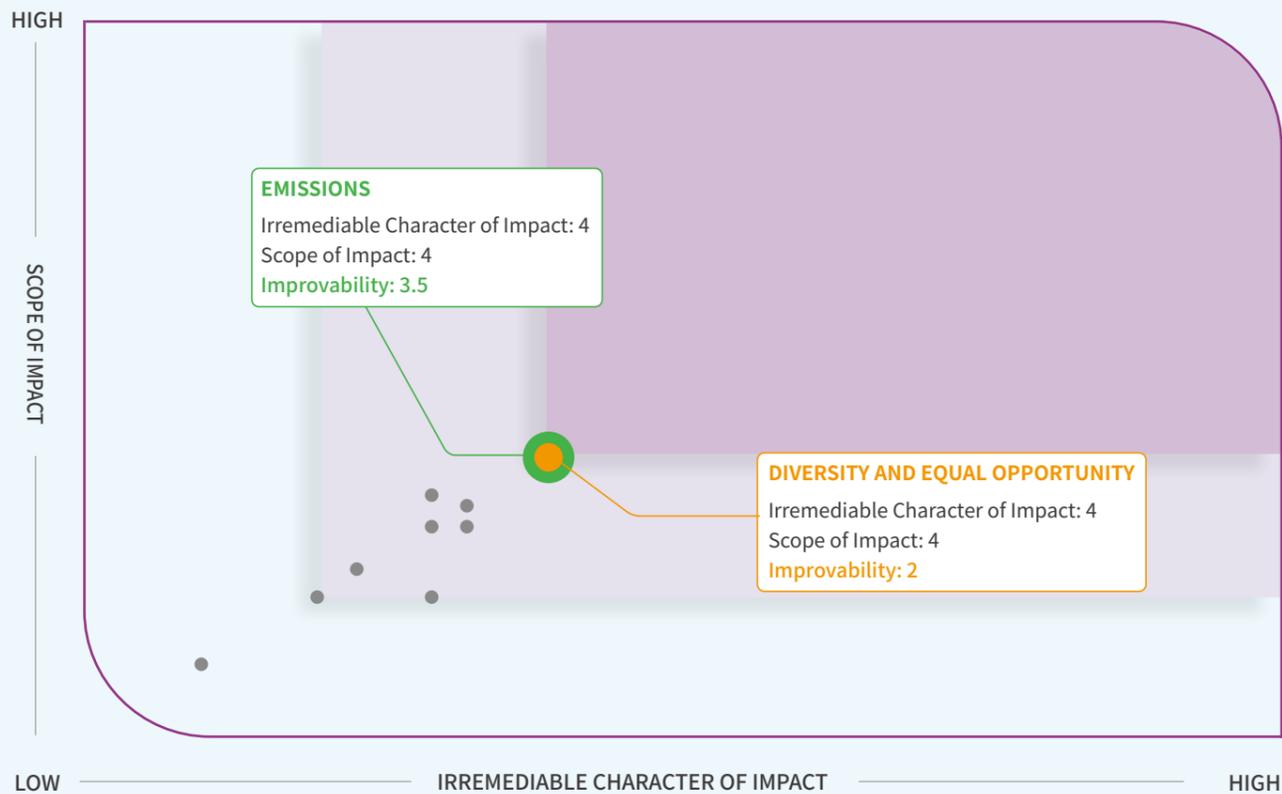


Impact	Material Topics	Double Materiality		Cause of the Impact	Target of the Impact	GRI Standards
		• Impact on the Economy	• Impact on the Environment, Society, and People			
Potential Positive	Competitive Remuneration and Benefits	Offer compensations and benefits superior to those of the region/industry at the main operating sites for employees to have economic security.	Establish steadfast community relations and increase employee loyalty to elevate the social identity of the Company at where it operates.	Business Activities	Employees	Market Presence
	5G Application and Industry Ecosystem	A large proportion of procurement is locally procured, along with building good local/community relations, to ensure supply integrity as well as financial and economic stability, benefiting the industrial ecosystem development.	Indirectly promote economic development in the region through supply chain procurement, including attracting other investments and increasing job opportunities to promote economic development in the region.	Products and Services Business Relationships	Significant Suppliers	Procurement Practices
	* Sustainable Supply Chain Management	Plan and institute the complete supplier sustainability management plan to assess and identify the environmental and sustainability risks of suppliers on a regular basis, improve their competencies, and reduce the risk of violation of the laws by the Company via a well-rounded ESG assessment and audit mechanism.	A complete sustainable supply chain management plan to regularly assess the ESG risks of suppliers and work with suppliers with excellent ESG performance to effectively reduce the environmental impacts from suppliers' operations and drive the improvement of ESG competencies in the industry.	Business Relationships	Significant Suppliers	Supplier Environmental Assessment

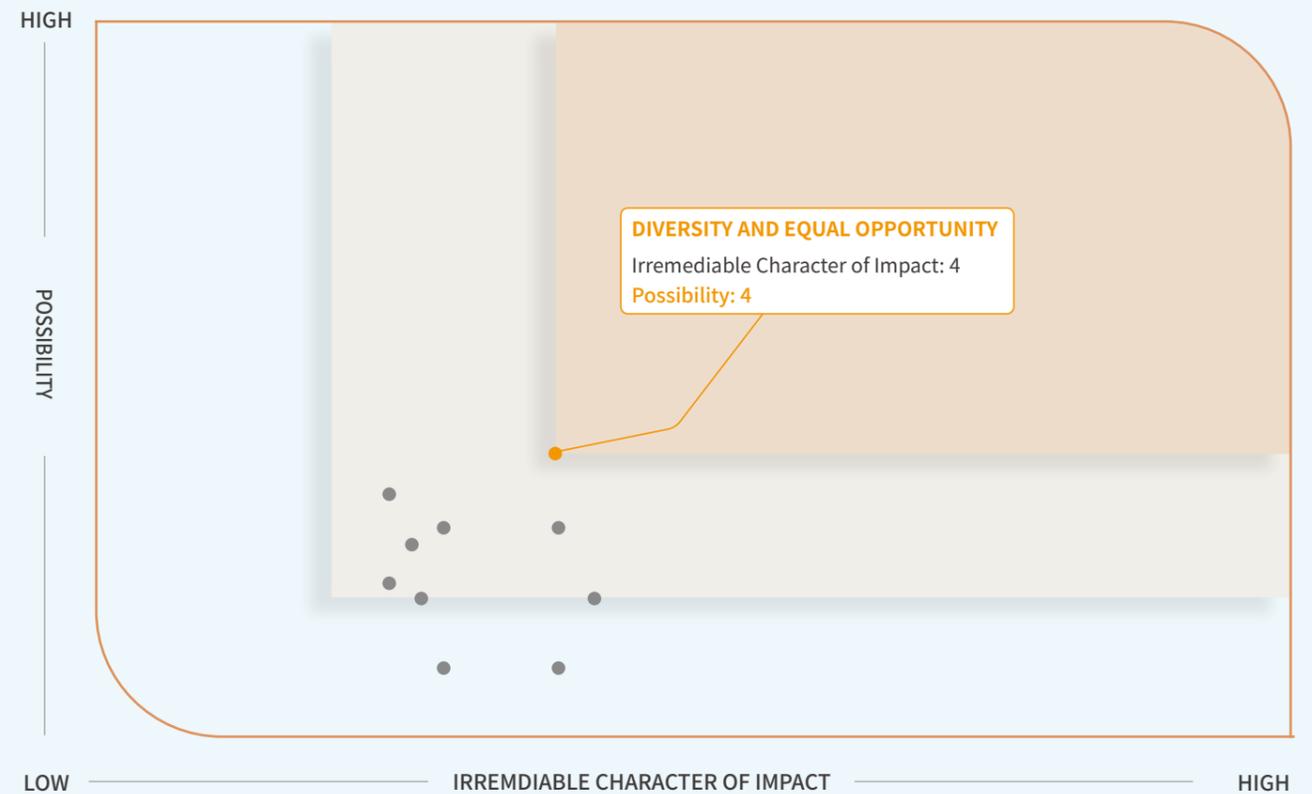
Impact	Material Topics	Double Materiality		Cause of the Impact	Target of the Impact	GRI Standards	
		• Impact on the Economy	• Impact on the Environment, Society, and People				
Actual Negative	Carbon Emission Reduction and Climate Adaptation	High carbon fees (taxes) are levied due to the failure to effectively reduce carbon emissions in response to laws and regulations, resulting in increased direct/indirect operating costs and potentially decreased climate resilience and transformational adaptation competencies.		The inability to effectively promote climate transition actions, along with the failure in reducing carbon emissions, not only prevents achievement of the goal of net-zero emissions but also affects the low-carbon development of the ICT industry, damaging the competitiveness in the industry and rendering negative impacts on climate change.	Business Activities Business Relationships	CHT All Suppliers	Emissions
Potential Negative	Diverse and Inclusive Workplace	The rising average age of the organization and excessive homogeneity, failure to incorporate representatives of diverse groups, and inability to think outside the box hinder innovation and development, which impede the development of emerging industries and services.		The lack of diversified employment mechanism renders inability to provide ample job opportunities for diverse talents, obstacles for young talents to enter the job market, and impacts on the innovation, creativity, and entrepreneurship in the ICT industry, affecting the overall economic development of the industry.	Business Activities	Employees	Diversity and Equal Opportunity

Note: 1. Double Materiality: When evaluating sustainability/ESG issues, we consider both the impact of sustainability/ESG on corporate operations and business, as well as the impact (positive or negative impact) of corporate operations on the social environment and people.  
 2. "\*" is an issue that has a significant impact and influence on external stakeholders.  
 3. Material topics additions and revisions for 2022: 3 new topics "Emissions, Procurement Practices" and "Supplier Environmental Assessments"; 6 topics "Economic Performance, Energy, Labor / Management relations, Non-discrimination, Occupational Health and Safety, Marketing and Labeling" were deleted.

**Actual Negative** The materiality threshold: 4 and above / ≥ 4



**Potential Negative** The materiality threshold: 4 and above / ≥ 4



## Management Procedure

ESG Aspect	Material Topics	Policy/Commitment	Verification and Tracking Mechanisms	Goal	Progress in 2022
	Emissions	Establish a systematic and organized corporate governance structure through the dual-management mechanism of the "Sustainable Development Committee" and "Risk Management Committee," combined with the existing internal control and risk management mechanism, and report to the Board of Directors on a quarterly basis to strengthen the connection between climate change topics and the Board of Directors.	<ul style="list-style-type: none"> <li>Responsible/Grievance Unit: "Environmental Group" under the Sustainable Development Committee</li> <li>Internal carbon pricing system</li> <li>TCFD performance assessment</li> <li>Public commitments by significant suppliers to the net-zero goal with CHT</li> <li>External verification: ISO 14064-1 Greenhouse Gases verification</li> </ul>	<ul style="list-style-type: none"> <li>2023: Procurement of 69 million kWh of renewable energy</li> <li>2030: 50% carbon reduction, IDCs 100% on renewable energy, and 22.5% carbon reduction in the supply chain</li> <li>2050: Goal of Net Zero Emissions</li> </ul>	<ul style="list-style-type: none"> <li>Carbon emissions reduced by 9.6% compared with the base year of 2020</li> <li>IDCs usage 9.2% on renewable energy</li> </ul>
	Supplier Environment Assessment	All bidders are required to fill in the "Supplier ESG Status Self-Assessment Form" that covers items: corporate ethics, labor rights, environmental management, occupational health and safety; suppliers are specifically required in the procurement contract to abide by "Chunghwa Telecom Sustainability/ESG Guidelines."	<ul style="list-style-type: none"> <li>Responsible/Grievance Unit: Supply Department</li> <li>CDP Supply Chain Program</li> <li>Second-party audit by a third party</li> <li>Sustainability Partner Rating System</li> </ul>	<ul style="list-style-type: none"> <li>2030: 100% of significant suppliers certified to "CHT Sustainability Partner Rating"</li> </ul>	<ul style="list-style-type: none"> <li>56% of suppliers responded to the CDP questionnaire of Chunghwa Telecom</li> <li>Sustainable Partner Rating: cumulative 45 partners with Gold-tier Certificates</li> <li>A collective commitment with 35 significant suppliers to attain the goal of Net Zero by 2050</li> </ul>

ESG Aspect	Material Topics	Policy/Commitment	Verification and Tracking Mechanisms	Goal	Progress in 2022
	Diversity and Equal Opportunity	Chunghwa Telecom is committed to implementation of gender equality and diversity policies and attaches great importance to the fair pay and promotion opportunities, ensuring that employees are not subject to discrimination, harassment, or unfair treatment arising from ethnicity, gender, religion, age, political leanings, or otherwise protected by applicable laws and regulations.	<ul style="list-style-type: none"> <li>Responsible/Grievance Unit: Organization and Talent Development Department</li> <li>Labor-management conference</li> <li>Appeal Review Committee to handle matters of discrimination, harassment, or unfair treatment</li> <li>1 seat of labor director on the Board of Directors</li> </ul>	<ul style="list-style-type: none"> <li>0 incident involving human rights or discrimination violation</li> <li>2023: promotion of Women's Power Star Program</li> </ul>	<ul style="list-style-type: none"> <li>More than 30% of female employees receiving transfer training</li> <li>"The World's Top Female-Friendly Companies 2022" by Forbes</li> <li>Employees with disabilities: 3.39 times higher than the statutory standard</li> </ul>
	Customer Privacy	The Privacy Policy that applies to all Business Groups, operating sites, subsidiaries, and suppliers has been stipulated. "Cybersecurity and Privacy Protection Steering Committee" has established. An SEVP is appointed by the Chairman as CISO to exercise security management and protection measures for personal data and privacy. Also, the goal and commitment to zero tolerance is achieved via regular meeting and third-party verification.	<ul style="list-style-type: none"> <li>Responsible/Grievance unit: Chief Information Security Officer (CISO)</li> <li>Performance of cybersecurity and privacy risk management incorporated into the tracking by the Risk Management Committee monthly and reported to the Board of Directors annually</li> <li>Third-party conformity verification for "Privacy Policy" yearly</li> <li>International management system certification and audit</li> <li>Performance measurement and rewards/punishments: Cybersecurity and privacy protection included as part of the performance appraisal for all employees</li> </ul>	<ul style="list-style-type: none"> <li>Maintaining 0 incident involving major cybersecurity or personal data breach</li> <li>Maintaining validity of certificates</li> </ul>	<ul style="list-style-type: none"> <li>No incident of personal data breach</li> </ul>
	Customer Health and Safety	Apart from development of eco-friendly products, we actively promote green stores as the first telecom operator in Taiwan that has its service centers fully transformed into green stores. Through "Chunghwa Telecom Green Stores", we encourage consumers to purchase green products first. As for impacts to human health and safety from services, we strictly adhere to the electromagnetic wave safety standards required by the National Communications Commission (NCC) to install mobile communication systems and provide electromagnetic radiation testing service in an attempt to comply with relevant laws and regulations and clarify doubts over the impact.	<ul style="list-style-type: none"> <li>Carbon Label for Services from EPA Taiwan</li> <li>FSC certification (shopping bag)</li> <li>Electromagnetic radiation testing service: +886 800 580 010</li> </ul>	<ul style="list-style-type: none"> <li>2025: 1% annual growth in revenue from green products and services</li> <li>2030: Green products and services accounting for 20% of total revenue</li> <li>Maintaining the specific absorption rate (SAR) of electromagnetic energy in compliance with the NCC regulations</li> <li>100% promotional information of products and services in compliance with laws and regulations</li> </ul>	<ul style="list-style-type: none"> <li>Revenue from green products in total revenue from products sold: 14.17%</li> <li>Green stores: 447 regular stores</li> <li>Free electromagnetic radiation testing cases: 103 cases</li> </ul>

ESG Aspect	Material Topics	Policy/Commitment	Verification and Tracking Mechanisms	Goal	Progress in 2022
	Market Presence	The independent "Compensation Committee" is instituted to supervise the decision-making process for compensations to provide competitive compensations for talents with potential. Through a transparent remuneration policy, employees are rewarded for the operational performance of the Company. In response to sustainable development, the high-level ESG performance is directly linked to variable compensation.	<ul style="list-style-type: none"> <li>Responsible/Grievance Unit: Organization and Talent Development Department</li> <li>Remuneration clawback mechanism</li> <li>1 seat of labor director on the Board of Directors</li> </ul>	<ul style="list-style-type: none"> <li>2025: 30% of high-level variable compensation linked with ESG performance</li> </ul>	<ul style="list-style-type: none"> <li>The entry-level salary was 1 time to that in Taiwan; the average salary was 3 times the entry-level salary in Taiwan.</li> <li>10% of the high-level variable compensation was linked with ESG performance.</li> </ul>
	Procurement Practices	Exercise green procurement. Green products with green labels (low in pollution, recyclable, resource efficient, or green building materials), self-declared, or with lower environmental impacts throughout their lifecycles (from resource procurement to disposal) are prioritized for procurement, along with active participation in green procurement initiatives and campaigns.	<ul style="list-style-type: none"> <li>Responsible / Grievance Unit: Supply Department</li> <li>ISO 20400 Sustainable Procurement – Guidance as the reference</li> </ul>	<ul style="list-style-type: none"> <li>2035: The green procurement amount accounting for over 50% of total procurement</li> </ul>	<ul style="list-style-type: none"> <li>Green procurement: NT\$17,605 million</li> <li>Green procurement amount in the total procurement: 28.67%</li> <li>Domestic procurement: 97%</li> </ul>
	Anti-corruption	To strengthen the ethical management behaviors, the "Ethical Corporate Management Best Practice Principles" and "Code of Conduct" have been established as the highest business ethical standards; the principle of zero tolerance is upheld for the "Anti-corruption Policy," specifying clear guidelines for anti-corruption and anti-bribery, to regulate all business interactions.	<ul style="list-style-type: none"> <li>Responsible/Grievance Unit: Organization and Talent Development Department</li> <li>Reward/Punishment system: the ethical management policy integrated with employee performance appraisal and human resources policy</li> <li>"Code of Conduct" verified by third party for conformity verification yearly</li> </ul>	<ul style="list-style-type: none"> <li>Maintaining zero corruption</li> <li>Ongoing obtainment Certificate of Conformity with independent verification by SGS-Taiwan for "Code of Conduct"</li> </ul>	<ul style="list-style-type: none"> <li>Zero incident of corruption</li> <li>Statement of CoC Conformity for "Code of Conduct" from SGS-Taiwan for 4 consecutive years</li> </ul>

# Stakeholders Engagement

Identifying key stakeholders and relevant issues is the core work in implementing corporate sustainability. In the kick-off meeting of ESG report preparation, we invite members from all departments to exchange the opinions of issues related to current key stakeholders and their concerns. Upon reaching mutual understanding, the result is incorporated into a table that is regarded as an essential reference for the disclosures in the report. In the process of promoting sustainable activities and information disclosure, we consult the opinion of the internal and external stakeholders, important relevant mechanisms include:

- "Consultation meeting with external professionals" for ESG report
- Nonperiodic invitation of external professionals to the "ESG Conference" and relevant forums
- The "ESG Supplier Conference" is held every year
- Sustainable Development Committee established to coordinate internally to promote ESG-related development projects
- Specialists designated for CHT Foundation to facilitate NGO and NPO exchanges
- CHT was the first to create "ESG videos" and the CHT official YouTube ESG program to record the implementation of ESG action on a regular basis, as well as the collection of internal and external feedback for further improvement



\* ESG Video link [🔗](#)

CHT Stakeholder Engagement Guidelines: \* Guideline [🔗](#) \* Channel [🔗](#) \* 2022 Results [🔗](#)

Stakeholder	Meaning to Chungwa Telecom	Focused Topics	Communication Channel	Communication Frequency
<b>Shareholders / Investors</b>	As shareholders / investors are our stockholders, we must be accountable to them.	<ul style="list-style-type: none"> <li>• Economic Performance</li> <li>• Anti-corruption</li> </ul>	<ul style="list-style-type: none"> <li>• Shareholders' meeting</li> <li>• Shareholder hotline/ mail</li> <li>• Earning results conference</li> </ul>	<ul style="list-style-type: none"> <li>• Annually</li> <li>• Real-time</li> <li>• Quarterly</li> <li>• Nonperiodic</li> </ul>
<b>Employees</b>	Employees are critical to the sustainable development and they are the driving force for sustainable growth.	<ul style="list-style-type: none"> <li>• Market Presence</li> <li>• Anti-corruption</li> <li>• Labor/Management Relations</li> <li>• Gender equality, Non-discrimination</li> <li>• Diversity and Equal Opportunity</li> <li>• Occupational Health and Safety</li> </ul>	<ul style="list-style-type: none"> <li>• E-mail</li> <li>• Telephone call</li> <li>• Online forum</li> <li>• Labor employer meeting</li> <li>• Negotiation meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time</li> <li>• Every 2 months</li> <li>• Nonperiodic</li> </ul>
<b>Clients / Customers</b>	Only when customers prefer the products and services of Chungwa Telecom could we have value for existence.	<ul style="list-style-type: none"> <li>• Customer Privacy</li> <li>• Marketing and Labelling</li> </ul>	<ul style="list-style-type: none"> <li>• Service hotline</li> <li>• Customer service center</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time</li> </ul>
<b>Suppliers</b>	The large product and service chain of Chungwa Telecom relies on the stable support of the suppliers.	<ul style="list-style-type: none"> <li>• Environmental Compliance</li> <li>• Energy</li> </ul>	<ul style="list-style-type: none"> <li>• E-mail</li> <li>• Hotline</li> <li>• ESG Supplier Conference</li> <li>• Supplier Training</li> <li>• Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time</li> <li>• Annually</li> <li>• Nonperiodic</li> </ul>

Stakeholder	Meaning to Chungwa Telecom	Focused Topics	Communication Channel	Communication Frequency
<b>Communities / NPOs</b>	We wish to reciprocate for society with our professional standing in telecom and create a better future.	<ul style="list-style-type: none"> <li>• Environmental Compliance</li> <li>• Socioeconomic Compliance</li> </ul>	<ul style="list-style-type: none"> <li>• E-mail</li> <li>• Hotline</li> <li>• Stakeholder forum</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time</li> <li>• Nonperiodic</li> </ul>
<b>Media / Accreditation Institutes</b>	We have learned and grown with the media and accreditation institutes through their mentorship in sustainable development.	<ul style="list-style-type: none"> <li>• Energy</li> <li>• Anti-corruption</li> <li>• Economic Performance</li> </ul>	<ul style="list-style-type: none"> <li>• E-mail</li> <li>• Hotline</li> <li>• Press release</li> <li>• Press conference</li> <li>• Survey</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time</li> <li>• Nonperiodic</li> </ul>
<b>Competent Authorities</b>	Our products, services and related marketing behaviors are subject to audits by the competent authority.	<ul style="list-style-type: none"> <li>• Environmental Compliance</li> <li>• Socioeconomic Compliance</li> <li>• Occupational Health and Safety</li> <li>• Marketing and Labelling</li> <li>• Labor / Management Relations</li> <li>• Anti-corruption</li> </ul>	<ul style="list-style-type: none"> <li>• Public hearing / press conference</li> <li>• E-mail</li> <li>• Official document</li> <li>• Meeting</li> <li>• Telephone call</li> <li>• Visit</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time</li> <li>• Nonperiodic</li> </ul>
<b>Competitors</b>	As the leading brand in the telecom industry in Taiwan, we strive to engage in fair competition in the industry for a healthy development of the industry.	<ul style="list-style-type: none"> <li>• Market Presence</li> <li>• Marketing and Labelling</li> </ul>	<ul style="list-style-type: none"> <li>• Official document</li> <li>• Meeting</li> <li>• Telephone call</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time</li> <li>• Nonperiodic</li> </ul>

## 2022 ESG Results of Critical Stakeholders Engagement



### Shareholders / Investors

- 1 Annual general meeting
- 576 calls from shareholders answered
- 4 Earning results conferences
- 7 NDR and broker investor conferences
- 117 visits/teleconferences with investors



### Competent Authorities / Government

- 1,993 appeal and 273 negotiation meetings completed
- 417 business inspections



### Employees

- 6 Labor-management conferences (to deliberate on 53 proposals)
- 5 Negotiation meetings (to deliberate on 47 proposals)
- 39 mails from employees, all of which have been addressed in a timely manner



### Clients

- Approx. 35.93 million cases served by all channels of customer service (including the customer service hotline, customer grievance, call-out care, and text-based customer service chatbot service)
- 13.03 million tickets received
- 29.776 million cases of customer business accepted



### Media

- 325 press releases in total
- 22 press conferences in total



### Competitors

- 66 conferences attended



### Suppliers

- 56 significant suppliers attended in the Supplier Sustainable Environmental Visits
- 117 suppliers participating in the "2022 Annual ESG Supplier Conference"

## 2022 Annual ESG Supplier Conference

The 2022 Chunghwa Telecom Annual ESG Supplier Conference, themed with "Net-Zero Partners for Transformation Together," launched the net-zero initiative "Hand in Hand with Partners for Carbon Reduction Together" in collaboration with the 35 significant suppliers of the Company, to declare 50% cut of carbon emissions in the supply chain of Chunghwa Telecom by 2030 and the goal of Net Zero by 2050.

Distinguished guests, including Chairman Eugene Chien of Taiwan Alliance for Net Zero Emission (TANZE) and Taiwan Institute for Sustainable Energy (TAISE), Secretary-General Tsai Chi Ku of Taiwan Academy of Corporate Sustainability (TACS), and Deputy General Manager Stephen Pao of SGS-Taiwan, attended the event and witnessed Chunghwa Telecom's cooperation with supply partners to practice environmental sustainability.

In 2022, "CDP Best Carbon Management Disclosure Award" went to Arcadyan Technology Corporation. "ESG Information Disclosure Award" was presented to "Potential Electric Co., Ltd., Winking Digital Co., Ltd., and Intumit Inc.

For Chunghwa Telecom Sustainability Partner Rating, a total of 21 companies won the honor of "Gold-tier Certificates." The "Certificates of Sustainability Rating" were presented by President Shui-Yi Kuo. Through the strategy of extensive alliance for sustainability, we guide supplier partners to seize the low-carbon and zero-carbon business opportunities and contribute to global climate change and the sustainable transformation of the ICT industry.



# 4 SUSTAINABILITY RISKS AND OPPORTUNITIES



CHT places emphasis on the control of the corporate operation and sustainability risk. In 2016, the Company established a Risk Management Committee with the President as convener and high rank managers as members. The committee supervises risk management throughout the organization and is responsible for prioritizing identified risks, formulating response strategies to key risk issues, and reporting to the board of directors when deemed necessary. Through control of the mechanism at each level, potential risks and loss to the Company can be minimized.

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The SDGs CHT contributes to in this chapter:



The **first** telecom operator in the world to pass "**TCFD Conformity Check**" with **the highest grade obtained for 3 consecutive years.**



CHT is actively looking into the development of **renewable energy**, self-built or **for sale soar energy installation.**



Our "**Risk Management Committee**" adopts Enterprise Risk Management (ERM) software to govern every business decision made by our employees.



The development of the Artificial Intelligence will popularize edge computing, IoT drones, AR and VR. These emerging industries will **propel the development of hardware and operating systems.**



Based on NIST's Cybersecurity Framework (CSF) and domestic and international standards and regulations, CHT established the "**Chunghwa Telecom Cybersecurity and Privacy Protection Framework.**"

## CHT Risk Management Organization Structure



Aspects	Description
<b>Organizational Aspect</b>	<ul style="list-style-type: none"> <li>"Risk Management Committee" was established in 2016, which convenes committee meeting regularly, presents execution report monthly, reports the operation to the Board of Directors quarterly, and reports to the Audit Committee and Board of Directors on material risk events.</li> </ul>
<b>Strategic Aspect</b>	<ul style="list-style-type: none"> <li>Risk policies and framework stipulated by the Board of Directors.</li> <li>"Risk Management Policy" and "Directions Governing the Risk Management Operation" as the bases for all personnel's reference in conducting business.</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>The Enterprise Risk Management (ERM) system was established for the regular control of the risks, and we track it on a rolling basis.</li> </ul>
<b>Assessment Tool</b>	<ul style="list-style-type: none"> <li>We use the Risk Analysis Matrix as our assessment tool to assess operational, strategic, compliance and reporting risks, etc.</li> <li>For the major operational items and relative ESG issues, including climate-related risks, we enhance the performance of sensitivity analysis and the stress test.</li> <li>Pursuant to Recommendations of the Task Force on Climate-related Financial Disclosures (referred to as "TCFD Framework" hereinafter), we analyzed the scope of operation, upstream and downstream, as well as the climate-related risks and opportunities throughout the life cycles of assets in the short-, mid-, and long-terms.</li> </ul>
<b>Audit Aspect</b>	<ul style="list-style-type: none"> <li>Risk Management Committee promotes implementation of risk management efforts of the Company and evaluates performances in risk management.</li> <li>The Audit Department reviews the risks and reports to the Board of Directors.</li> <li>The management and control results are incorporated as part of the performance appraisal of respective institutions.</li> </ul>
<b>Feedback and Improvement</b>	<ul style="list-style-type: none"> <li>Risk status is followed up monthly and reported to the Risk Management Committee convener and the Audit Department.</li> <li>The Risk Management Committee (in addition to the committee members, the Chief Audit Executive is present) convenes regularly as well as reports to the Audit Committee and the Board of Directors.</li> <li>The Committee improves the current risk management mechanism based on Risk Management Committee, Audit Committee and Board of Directors' decision to ensure the process is up to date and satisfies the operational need.</li> </ul>
<b>Implementation Results in 2022</b>	<ul style="list-style-type: none"> <li>3 meeting were convened with focuses on the enterprise-level risks tied with the objectives in the business plans and deliberations on directions of material risk topics.</li> <li>Reported to the Audit Committee twice and to the Board of Directors four times on the implementation of risk management.</li> </ul>

\* For more information about Risk Management, please refer to: [\[Link\]](#)

## Emerging Risks

CHT continues with advanced technological research and development to take advantage of many business opportunities in this digital convergence era and reduce operational risk. We absorb, cultivate and make good use of excellent available talent to integrate Internet and marketing resources.

We cooperate closely with our strategic partners in the launch of new services and products that satisfy our customers. We have become the Digital Economy Motivator and the Creative Industry Pilot, and we create values for clients, shareholders, employees and society.

### Risk Factor

**Dwindled advantage in the mobile services market due to the merger of competitors**

### Potential Influences / Obstacles

Increased bandwidth and user population of competitors that leads to impact to our mobile market share

### Countermeasures / Risk Avoidance and Opportunity Seizure

- Strengthen 4G/5G construction, introduce 5G dual band service, and new features, including introduction of 5G NR CA, addition of 4G stations, and ongoing improvement to network coverage and capacity.
- Establish the network advantage of "Always Broadband Connected" with triple networks of mobile networks, optical networks, and Wi-Fi services combined to boost the QoE of users.

### Risk Factor

**Twists in the energy transition for the net-zero emissions policy**

### Potential Influences / Obstacles

It affects the power supply stability

### Countermeasures / Risk Avoidance and Opportunity Seizure

- Strengthen the resiliency of networks to ensure business continuity, e.g. strengthen the emergency backup capacity of networks and IDCs, request Taipower to adopt dual-feeder power supply for critical IDCs, increase the emergency power generation units and batteries installed, phase out old energy-consuming equipment, and introduce low-carbon network equipment, etc.

### Risk Factor

**Impediment to achievement of the net-zero goal due to the short supply of renewable energy**

### Potential Influences / Obstacles

Potential impact on the willingness of customers, and even the international investors and ratings, due to failure of IDCs to attain the carbon reduction target

### Countermeasures / Risk Avoidance and Opportunity Seizure

- Actively explore for stable and sufficient supplies of renewable energy, obtain the supply of solar power and onshore wind power first through short-term contracts to wheel power to IDCs for use, and seek signing of long-term CPPA depending on the progress of the government's development in the sector of offshore wind power.
- Preemptively enter the energy transition industry to reduce risks.

## Emerging Opportunities

The 5G+AIoT technology will drive intelligent technological applications and push corporations in Taiwan to move their business emphasis. With the advent of Industry 4.0 and the rapid emergence of new online applications, cybersecurity specialists are issuing warnings regarding the looming threat of multimodal, multifaceted attacks. However, this also creates an opportunity for companies that offer an integrated cybersecurity service package. The government has classified information security as a matter of national security, including it as part of the national defense industry in the 5+2 New and Innovative Industries Policy.

CHT spares no effort in the refinement of cybersecurity technology. In 2017, CHT founded CHT Security, a subsidiary with all 5 service items rated as "A" in the Cyber Security Service Provider Assessment of the Executive Yuan for 4 consecutive years. Aside from assisting in the regional joint defense of cybersecurity for 15 counties/cities domestically, it further supports numerous important entities in the public sector, finance, high-tech manufacturing, medicine, critical infrastructure, etc. in terms of cybersecurity check and protection.

### Opportunity Factor

#### Information Security Management

### Potential Business Opportunity

- Popularization of emerging technological applications as well as diversified attacks by hackers boost the challenge of protection against cybersecurity threat while create new opportunities in the cybersecurity area.
- The FSC promulgated "Financial Cyber Security Action Plan" to drive the demands for cybersecurity protection, monitoring, and joint defense in the financial sector.
- The Executive Yuan announced the Cybersecurity Industry Development Action Plan. The gross output of the industry is expected to exceed NT\$ 78 billion dollars by 2025.
- Gartner pointed out that the global cybersecurity market accounted for approximately 3.32% of the global IT expenditures and rising.

### Countermeasures ■ Risk Avoidance and Opportunity Seizure

- As a managed security service provider (MSSP), we dedicated to the provision of a wide range of cybersecurity solutions. With the strategy of extensive alliance ,become the leader in the cybersecurity industrial chain integration.
- Create a low-burden, high-standard Advanced Networks Defense system (ANDs) for enterprises, complete the section 2 expansion of DDoS protection, and improve the IPS2.0 intrusion protection quality.
- The Digital Forensics and Cyber Security Testing Center of the subsidiary, CHT Security Co., Ltd., has been certified with the testing and certification of IoT devices and IEC 62443 CB TESTING LABORATORY (CBTL) in order to build a safer OT environment.

### Opportunity Factor

#### Development of 5G

### Potential Business Opportunity

Forecast from Qualcomm "The 5G Economy" shows that 5G technology will result in an output of US\$ 134 billion to the companies in Taiwan in 2035.

### Countermeasures ■ Risk Avoidance and Opportunity Seizure

- Launching "Taiwan 5G Industry Development Alliance - CHT leading team" to jointly promote 5G development, establish robust 5G operations, research and development, manufacturing, and enhance our 5G sales force.
- Participate in the Asia Silicon Valley Development Plan of the National Development Council to assist in promoting the domestically produced equipment in global market.



### Opportunity Factor

#### AIoT

### Potential Business Opportunity

- Following the ease-up of the global pandemic and gradual recovery of production demand in the supply chain, the output value of IoT in Taiwan has exceeded NT\$2 trillion in 2022.
- New application opportunities, including net-zero carbon emissions, metaverse, electric vehicles, etc., present business opportunities for the development of the IoT industry.

### Countermeasures ■ Risk Avoidance and Opportunity Seizure

- In connection with 5G+AIoT innovative technology, the five focused areas, i.e. Smart Building, Smart Transportation, Smart Security, Smart Energy, and Smart Medicine, are developed together with the industry to build smart IoT solutions and services that are more convenient and safer for the government and enterprises.
- 5G+AIoT continues to march towards the corporate target of NT\$10 billion revenue by 2025.

AIoT

### Opportunity Factor

#### Climate Change (low carbon products and services)

### Potential Business Opportunity

- The World Economic Forum (WEF) predicted that of the potential risks in the next decade, four out of the top five risks are environmental issues, especially the "extreme weather."
- Businesses around the globe are investing in low carbon emission infrastructure, including green energy, electric automobiles, and smart cities to reduce reliance on electricity.
- The bonds issued by green enterprises worldwide in 2021 were up to \$416.5 billions' worth, accounting for 3.51% of the corporate bonds issued globally and rising.

### Countermeasures ■ Risk Avoidance and Opportunity Seizure

- Green Product and Service Program — we provide energy-saving technology and services.
- We reduce carbon footprints through innovative green services, cloud products, and other technologies.
- We are building a cloud service platform that enables clients to access real time data regarding their energy usage and equipment status so that failures can be predicted and prevented.
- The sustainable development bond was issued. The fund raised shall be directed to green buildings and comprehensive VoIP for telephone networks , so as to realize the carbon reduction for all via technology.



# Climate Change Risks and Opportunities



Chunghwa Telecom builds a systematic and organized corporate governance structure to ensure that climate change related challenges are incorporated into the Company's annual strategy in real time and that relevant projects are implemented.

## The Supervisory Responsibility of the Board of Directors

The climate change-related risks and opportunities are managed through the dual mechanisms of Sustainable Development Committee and Risk Management Committee. In addition, with the existing internal control and risk management mechanisms combined, the links between the climate change topics and the Board of Directors' responsibility in the oversight thereof is strengthened through the report to the Board of Directors quarterly.

## Task Force on Climate-related Financial Disclosures (TCFD)

Chunghwa Telecom is the first telecom company in Taiwan to sign on as supporter of the Task Force on Climate-related Financial Disclosures (TCFD) initiative. The Task Force on Climate-related Financial Disclosures (hereinafter as "TCFD") has been introduced in 2019 to conduct analyses of climate risks and opportunities so as to promote works of climate change mitigation and adaptation for an ongoing reduction of operational risks for the Company and drive the low-carbon transformation in the industrial chain. In 2023, CHT was certified to the highest grade of TCFD Conformity Check for 3 consecutive years.

\* For Chunghwa Telecom TCFD report, please refer to: [\[Link\]](#)

For Climate-related Information of TWSE and TPEX Listed Companies, please refer to p.167 of our 2022 ESG report.

## The Role of Management

The "Environmental Group" is set up under the CHT Sustainable Development Committee. Pursuant to the ESG vision and carbon management strategies laid out by the Board of Directors and the Sustainable Development Committee, in line with the needs of international institutional investors, rating agencies, and key stakeholders, it plans, enforces, and manages execution of various climate change and carbon management action plans. The relevant mechanisms include:

### Target Setting:



Target setting for the net-zero emissions, GHG reductions, and climate resilience improvement of CHT.

### Strategic Planning:



Strengthening the carbon management competencies of the Company and its supply chain with mitigation and adaptation at the core, along with improvement of climate resilience of the telecom infrastructure and communication equipment, to ensure business continuity.

### Solutions:



Proposal of innovative solutions to reduce GHG emissions from itself and the industrial chain; planning and execution of "Action Plans for Adaptation to Climate Change in the next 20 Years for Chunghwa Telecom Communication Networks" to deploy climate change adaptation actions.

## CHT Climate Change Strategies

### Mitigation



Attainment of net-zero emissions is the foremost mission, along with facilitation to partners, upstream and downstream, to collectively realize the target of 1.5°C set in the Paris Agreement.

### Adaptation



Improvement of the climate resilience for the infrastructure and communication equipment of the Company is the foremost mission to ensure business continuity for the Company.

To analyze the future impacts of climate change on the Company, we employed the TCFD structure, setting a baseline scenario and a 1.5°C scenario to identify and analyze the short-, medium-, and long-term climate risks and opportunities in the business scope of the Company, the upstream and the downstream, and the entire life cycle of assets. IEA STEPS (baseline scenario) and IEA NZE (1.5°C scenario) are employed as the climate scenarios for climate mitigation strategies (transition risks). IPCC RCP 8.5 (baseline scenario) and IPCC RCP 2.6 (1.5°C scenario) are employed as the climate scenarios for climate adaptation strategies (physical risks).

Notes: 1. STEPS: Stated Policies Scenario; 2. NZE: Net Zero Emissions; 3. RCP: Representative Concentration Pathway

## Climate Change Scenarios for "Mitigation and Adaptation"

### Mitigation

#### IEA STEPS

- In this scenario, the government sets a net-zero emission target for 2050, with the base year of 2005. The carbon reduction target: 10% reduction in 2025, 24% ± 1% reduction in 2030, net-zero emissions in 2050, and other policies unchanged.
- The parameters we use are the reduced input costs for Scope 1 and 2 and assume the financial impact of a scenario where the achievement of net-zero emissions is mandatory in the future.

#### IEA NZE

- In this scenario, the government targets for net-zero emissions by 2050. With the assumption that the government amends the law and sets the base year as 2020, the carbon reduction target moves up to a 21% reduction in 2025, a 42% reduction in 2030, and net-zero emissions in 2050, along with the policies strengthened.
- The parameters we use are the reduced input costs for Scope 1 and 2 and assume the financial impact of a scenario where the achievement of net-zero emissions is mandatory in the future.

### Adaptation

#### IPCC RCP 2.6

- In this scenario, according to the analysis of the "Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP)" of the Ministry of Science and Technology for extreme weather events (e.g. typhoons and heavy rains), the number of typhoons that will invade Taiwan in the future will decrease, but the percentage of strong typhoons will increase, the precipitation intensity will rise, and the frequency and intensity of torrential rain shall remain on the rise.
- The parameter we use is operating costs, with the assumption that typhoon is to render loss of equipment, which will incur costs in repairment.

#### IPCC RCP 8.5

- In this scenario, countries do not take any measures, leading to ever-rising temperatures, exacerbating extreme weather events.
- The parameter we use is operating costs, with the assumption that typhoon is to render loss of equipment, which will incur costs in repairment.

## Climate Risks & Opportunities Assessment

We classified risks related to the industry as transition risks and physical risks and established the list of topics of risks and opportunities according to TCFD Directions. The risks fall into categories of policy and legal, technology, market, reputation of transition risks; acute and chronic of physical risks. Meanwhile, the opportunities are divided into resource efficiency, energy source, products/services, market, and resilience. Hence, we performed the identification and assessment process with the climate change risks and opportunities. The process is performed on a yearly basis in principle, covering us and the upstream/downstream as well as 100% the existing and new operating sites and communication equipment around Taiwan.

Risks / Opportunities	Category	Time			Issues
		short-term	Medium-term	long-term	
 Transition risk	Policy and Legal	✓	✓	✓	<ul style="list-style-type: none"> <li>Increased costs for GHG emissions due to the national policy of Net Zero Emissions</li> <li>Necessity in the investment in renewable energy owing to national renewable energy policy</li> <li>Increased operating costs arising from addition of other sustainability-related laws and regulations</li> </ul>
	Technology	✓	✓	✓	<ul style="list-style-type: none"> <li>Failure in new technology investment (e.g. a technology developed not meeting the low-carbon benefits, rendering failure of the new technology invested)</li> <li>Missed involvement in the low-carbon R&amp;D trend for failure of investment in the low-carbon transformation technologies</li> </ul>
	Market	✓	✓	✓	<ul style="list-style-type: none"> <li>Changes in customer behaviors (e.g. elevated consumer awareness for climate change or shift in product/service demands)</li> </ul>
	Reputation		✓	✓	<ul style="list-style-type: none"> <li>Impact to reputation from litigation risks</li> <li>Impact to reputation due to carbon reduction performance of suppliers not as expected</li> </ul>
 Physical risk	Acute	✓	✓		<ul style="list-style-type: none"> <li>Damage to facility/equipment due to increased severity of extreme weather events like typhoon or flood</li> <li>Product supply disruption/delay arising from impacts to supplier operation and production due to extreme weather events</li> </ul>
	Chronic		✓	✓	<ul style="list-style-type: none"> <li>Increased energy consumption due to rising average temperature</li> <li>Damage to assets and impact on supplier operation and production arising from long-term changes in climate environment (e.g. precipitation patterns, temperature, or sea level)</li> </ul>
 Opportunity	Resource efficiency	✓	✓	✓	<ul style="list-style-type: none"> <li>Decreased operating costs due to use of operational models of higher efficiency</li> </ul>
	Sources of energy	✓	✓	✓	<ul style="list-style-type: none"> <li>Reduced GHG emissions by adopting low-carbon energy sources</li> </ul>
	Products/services	✓	✓	✓	<ul style="list-style-type: none"> <li>Increased income thanks to development and/or addition of low-carbon products and services (adoption of energy conservation measures in the supply chain included)</li> </ul>
	Market	✓	✓	✓	<ul style="list-style-type: none"> <li>Motivated industrial transformation thanks to popularization of emerging technologies like 5G, IoT, and big data</li> </ul>
	Resilience	✓	✓	✓	<ul style="list-style-type: none"> <li>Reduced impact from physical risks thanks to strengthened asset resilience</li> </ul>

Note: The short-term is 2021-2025; the mid-term is 2026-2030; and the long-term is 2031-2050.

## Material Climate Risks & Opportunities



### RISKS



## Policy and Legal Risks

#### Risk Impact Summary:

- According to the assessment results of climate change risks and opportunities, among the transition risks, policy and legal risk has the highest weight, making it the material risk. In addition, subject to the Climate Change Response Act, companies in Taiwan are to achieve net-zero emissions by 2050.
- In the IEA STEPs scenario, the estimated additional expenditures in 2025, 2030, 2040, and 2050 are NT\$650 million, NT\$3.945 billion, NT\$8.393 billion, and NT\$2.045 billion, respectively. In the IEA NZE scenario, the estimated additional expenditures in 2025, 2030, 2040, and 2050 are NT\$1.447 billion, NT\$7.891 billion, NT\$6.398 billion, and NT\$3.050 billion, respectively.

#### Risk Responses:

- The carbon reduction strategies are (1) improve energy efficiency and (2) use renewable energy. The carbon reduction plans include but are not limited to: improve the energy efficiency of IDC equipment, replace aged equipment and repair/optimize existing equipment and facilities, install and procure renewable energy project sites, procure pure renewable energy, renewable energy certificates, energy storage equipment development, and other projects and plans.
- According to the results of the carbon inventory, the Scope 1 and 2 GHG emissions in 2022 are 714,098 t-CO<sub>2</sub>e, with a carbon reduction of 9.6% compared with the base year (2020). In the future, we shall continue to carry out comprehensive energy conservation and carbon reduction works on technology and personnel behavior to manage the possible impacts from such risk.

### RISKS



## Acute Risks

#### Risk Impact Summary:

- According to the assessment results of climate change risks and opportunities, among the physical risks, the acute risk has the highest weight, making it the material risk.
- According to IPCC's estimates and Taiwan's TCCIP information, landslides caused by precipitation at the intensity of typhoon may damage to assets of operating sites, IDCs, and base station assets of Chunghwa Telecom. Based on the assessment results, in the RCP 8.5 and RCP 2.6 climate scenarios, the potential financial impact of a strong typhoon on Chunghwa Telecom will amount to a minimum of NT\$149 million per year.

#### Risk Responses:

- Formulate short-, medium-, and long-term climate change adaptation plans, and prepare budgets each year in line with the work progresses of the climate change adaptation plans.
- The climate change adaptation plans involve works either in the short, medium, or long term, including:
  - Flood/Disaster Prevention Action Plan for IDC Telecom Equipment and Building Facilities
  - Adaptation Action Plan for Line Facilities in Response to Climate Change
  - Adaptation Action plan for Telecom Base Station Networks in Response to Climate Change

### OPPORTUNITIES



## Sources of energy

#### Opportunity Impact Summary:

- According to the international organization, Statista, the income from the IDC market is projected to reach \$342.1 billion in 2023, with the market scale to be \$410.4 billion in 2027.
- In view of the fact that all countries and key international customers have set net-zero targets, in the IEA STEPs and IEA NZE climate scenarios, we can realize the growth of IDC business through the target of 100% IDCs on renewable energy by 2030.
- Assuming that the Compound Annual Growth Rate (CAGR) of revenue is 4.66%, in the duration of 2023 and 2027, we expect the revenue from IDCs will increase by NT\$1.5 billion by 2027.
- After estimation of the demand for renewable energy from IDCs and calculation of the actual costs in renewable energy procurement, it is projected that the net profit will grow by approximately NT\$1.2 billion by 2027.

#### Opportunity Responses:

- By improving energy efficiency and reducing power consumption from the source, projects include but are not limited to: improve the energy efficiency of IDC equipment, replace aged equipment and repair/optimize existing equipment and facilities, etc.
- Actively deploy renewable energy, including installation and procurement of renewable energy project sites, pure renewable energy procurement, renewable energy certificates, energy storage equipment development, and other projects to gradually elevate the percentage of renewable energy use.

## Greenhouse Gas Emissions Management



Unit: t-CO <sub>2</sub> e	2020	2021	2022
Direct emissions (Category 1)	22,192.93	17,887.47	<b>19,185.32</b>
Indirect emissions (Category 2)	768,128.07	716,979.26	<b>694,912.72</b>
Total emissions (Category 1+ Category 2)	790,321.00	734,866.73	<b>714,098.04</b>
Emission Intensity (t-CO <sub>2</sub> e/NT\$ in million)	3.8	3.5	<b>3.3</b>
Percentage of category in revenue	100%	100%	<b>100%</b>

Notes: 1. Indirect emissions (Category 2) are measured on a location-based method.  
 2. Category 1 emissions increased by about 7.26% in 2022 compared to 2021 levels mainly due to refrigerant replacement.  
 3. The decrease of total emission in 2022 shows that the switch from PSTN to SVG, the power consumption optimization which does not affect the network operation, the replacement of old access and high energy consumption base equipment, and reduction of IDC PUE.  
 4. The telecom industry we belong to has no emissions of ozone-depleting substances or other major gases.

## Scope 3 Inventory and Verification

Upstream		Downstream	
<b>Category 3</b>	<b>Category 4</b>	<b>Category 5</b>	
Upstream transportation and distribution 646.60	Purchased goods and services 752,416.69	Use of sold products 460,657.59	
Downstream transportation and distribution 901.86	Capital goods 344,733.39	End-of-life treatment of sold products 1,403.50	
Business travel 1,174.65	Fuel- and energy-related activities 124,456.91	Downstream leased assets 115,519.72	
Employee commuting 10,203.88	Waste generated in operations 943.59	Investments 1,956.57	
	Upstream leased assets 13,045.93		
<b>Total</b>		<b>1,828,060.88</b>	

Note: The Scope 3 inventory was expanded in 2022. The carbon emissions generated by products on consignment at the stores (including CPE, mobile phones, tablets, etc.) belonging to Scope 3 categories include (1.) purchased goods and services, (4.) upstream transportation and distribution, (9.) downstream transportation and distribution, (11.) use of sold products, and (12.) end-of-life treatment of sold products, totaled 305,676.97 metric tons.

## Cybersecurity Risks

Driven by the Industry 4.0 development and emerging network applied technologies (e.g. 5G application, softwareization, virtualization/cloudification, and IoT), cybersecurity threats have evolved into multi-faceted mixed attacks that increase challenges for enterprises in cybersecurity management.

We continue to study and analyze measures for risk protection, align ourselves with international cybersecurity standards, and establish the joint defense mechanisms with governments and international cybersecurity organizations, effectively enhancing the overall cybersecurity defense and response capabilities of the Company. Furthermore, we are actively developing key information technology and strengthening supply chain security, which offer secured, reliable digital environment to our customers.



## Corresponding Strategies

Aiming to achieve the cybersecurity vision of "establishing the most valuable, secure, reliable, and trustworthy telecom service provider that meets international standards," we implement "Cybersecurity Policy" and "Privacy Policy" right from the start. Pursuant to the spirit of ISO 27001 Information Security Management System, we achieve the goal of "zero tolerance" for both major cybersecurity breach and privacy incidents.

In addition, to ensure the security of "ICT systems" and "critical infrastructure," with reference to the NIST Cybersecurity Framework (CSF) and in pursuance of the standards and regulations, domestically and internationally, we established "Cybersecurity and Privacy Protection Risk Management Framework" to put in place specific and effective measures for cybersecurity and privacy protection so as to prevent any potential cybersecurity risk.

Our performance of cybersecurity and privacy risk management has been incorporated into the regularly tracking by the Risk Management Committee for management. Any material risk issue will be submitted to the Audit Committee or directly reported to the Board of Directors. There was no business impact or penalty arising from cybersecurity or privacy breach as of 2022. "Cybersecurity Insurance - Data Protection Insurance" has been purchased to protect the rights of customers and investors.

## Opportunities and Actions

With the goal of "Attention & Implementation of Cybersecurity by All," we have incorporated "Information Security" in the KPIs for employees. Also, we regularly conduct internal/external audits and have passed inspections by competent authorities. At present, all of the IT infrastructures of Chunghwa Telecom are 100% certified to international cybersecurity standards (ISO 27001 / ISO 27011 / ISO 27017 / ISO 27018 / BS 10012 / CSA STAR Certifications).

For more information of the specific measures for cybersecurity and privacy protection, including Diversity and Defense-in-Depth for cybersecurity protection and management, intelligent security operation center, and cybersecurity threat detection and warning, critical infrastructure and ICT system Business continuity management, real-time incident report and rapid response mechanism, third-party vulnerability analysis and cybersecurity health diagnosis.

\* For more information of cybersecurity and privacy policy, please refer to: [🔗](#)

## Cybersecurity Management Strategy and Structure

- 1 To ensure an effective operation of cybersecurity management, "Cybersecurity and Privacy Protection Management Committee" has been established at Chunghwa Telecom. A SEVP represents as the Chief Information Security Officer (CISO), dedicated to the supervision of matters concerning the Company's internal cybersecurity.
- 2 Meetings of "Cybersecurity Working Group" and "Privacy Protection Working Group" are held regularly to review appropriateness of the policy directions; oversee and assessment the compliance and effectiveness of management measures; and report to the Board of Directors.

## Creation of the Most Valuable, Secure, and Reliable Digital Environment

- In the face of the increasing cybersecurity threat arising from geopolitics, Chunghwa Telecom actively responds to the government's policy of "information security is national security," allocating huge resources and cultivate cybersecurity talents and strengthening the cybersecurity resilience of critical infrastructure.
- Construct a smart cybersecurity monitoring platform, which successfully blocks approximately 20 million external attacks on a monthly basis, and work with C-ISAC, the national cybersecurity organization, for joint defense. In 2022, we shared 1,921 intelligences to lower the overall risk to hacking for the country and customers.
- Organize "Cybersecurity and Personal Data Protection" education and training and 2 email social engineering drills each year, along with requirement for all employees and contractors to 100% complete the training.
- Lay out the cybersecurity function map, design advanced training courses for different levels of managers and work areas, systematically strengthen employees' ICT security awareness, and comply with relevant regulations.
- In 2022, the advanced "Security Program Development Expert Cultivation Program" was initiated to incentivize employees to participate in the external security code competition and secure top three in the competition; the new, interactive application security training platform was also introduced to help developers think and write security codes with a security mindset in order to reduce security vulnerabilities, which is expected to train 200 experts in secure program development by 2023.



- 3 A department dedicated to ICT security management was approved to be set up to assess with the laws and regulations and technical development for new businesses, and coordinate matters concerning the companywide cybersecurity policies and regulations, risk control and management, cybersecurity surveillance and management, education and promotion, efficacy assessment, as well as compliance checks. The works of cybersecurity management are improved ceaselessly in line with the standards, laws, and regulations at home and abroad to reduce the corporate cybersecurity risks, offer a safe and reliable digital environment to customers.
- 4 Under the Cybersecurity and Privacy Protection Management Committee, the "Cybersecurity and Privacy Protection Executive Committee" and dedicated units are instituted in all Business Groups (Laboratories), supervised by the Deputy Cybersecurity Supervisors of Business Groups (Laboratories), to carry out and exercise various works for cybersecurity and privacy protection.

# 5 The Creation of Sustainable Value



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

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CHT is **the first** telecom company to institute sustainable supply chain management:

- Working with the Sustainable Alliance for Low-carbon Economy (SALcE) to audit and issue sustainability labels.
- The first in the telecom industry to join the Carbon Disclosure Project (CDP) in an effort to establish a sustainable supply chain.



CHT develops an **IoT (Internet of Things) platform** that integrates five major services— **information security, big data, cloud computing, artificial intelligence (AI), and augmented reality (AR).**



CHT integrates the ESG strategies with the business plan fully, piloting smart living and facilitating sustainable development with the service philosophies of **"green low-carbon, digital transformation, integrity and transparency."**



CHT is **the only telecom company in Taiwan to have a labor union.**



CHT proposed **"5I SDGs" —iHelping, iSharing, iLearning, iTechology, iProtecting—** Taiwan's first sustainable initiative that corresponds with the UN's Sustainable Development Goals (SDGs).



CHT is **the first** telecom operator to launch **5G services.**



CHT is **the first** mobile network operator to receive **ISO 45001** certification.



## Financial

### Impact on Value Creation

- To ensure eligibility for licensing (e.g., the 5G bands)
- Provides sufficient financial resources to support value creation
- Effective execution of commercial activities
- Generation and allocation of other forms of capital, such as distribution of shareholder equity, investments, and capital expenditure

### Resource Allocated to Sustain Value Creation

- Contribution to the government in the form of tax revenue
- Supports the development of network infrastructure
- Improves the quality of telecom services

### Impact on Value Creation

- Allocate financial capital to develop and maintain facilities
- Operation of the Internet Data Center (IDC) and the installation of wireless facilities and development of software and applications

### Resource Allocated to Sustain Value Creation

- Ongoing new construction, maintenance, and operation of network equipment
- Procurement control and the acquisition of more cost/energy efficient network equipment
- Consolidation of idle space and the recycling and disposal of obsolete equipment



## Production



## Human

### Impact on Value Creation

- Telecom knowledge and skills acquired by employees
- Human capital represents one of our major operational costs

### Resource Allocated to Sustain Value Creation

- Introduction to compensation and incentive schemes to attract and retain talent
- Encourage high value-adding services and innovations
- Talent training and development programs

### Impact on Value Creation

- Regular contact with the relevant authorities to ensure the conformance and legitimacy of the operations and competition
- Positive feedback from consumers and the general public helps build credibility of the Chunghwa Telecom brand, and minimizes financial outlay

### Resource Allocated to Sustain Value Creation

- Engage with stakeholders actively to make them better understand of the Company operations
- Engage in social activities to exert influence through core activities to minimize the digital divide



## Social



## Intellectual

### Impact on Value Creation

- Licensing, laboratory and R&D expenses, and the acquisition and development of industry technologies
- Investment to maintain the brand

### Resource Allocated to Sustain Value Creation

- Ongoing investment in R&D, construction, and services, and maintain service quality and customer satisfaction
- Investment in the R&D of new technologies and the setting of new protocols

### Impact on Value Creation

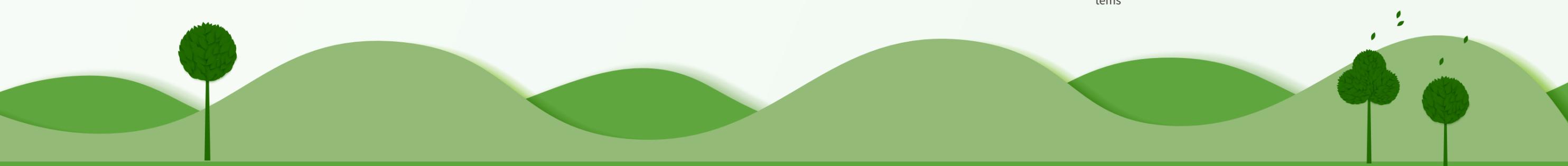
- Natural capital such as infrastructure, raw materials, and energy sources are needed to allocate and take advantage of human capital
- The use of energy-saving processes and solutions can effectively reduce the consumption of natural capital

### Resource Allocated to Sustain Value Creation

- Purchase products that are environmental and friendly to reduce consumption of natural resources and raise energy efficiency
- Use carbon management to minimize energy consumption and apply renewable energy solutions to a greater extent
- Focus on the development of renewable energy sources, by proprietary and commissioned Photovoltaic systems



## Natural



# The Digital Economy Motivator



The SDGs CHT contributes to in this section



## ICT Products and Services

Chunghwa Telecom has been developing ICT services across borders and smart applications that integrate with networks in the cloud. Seasoned with rich industrial service experiences and the alliance at home and abroad for the industry's innovative technologies, CHT built an emerging ecological chain of 5G industries. Together with global cloud service providers AWS, Azure and Google to offer world-class professional cloud services, CHT successfully facilitates enterprises in building cloud environments for corporate operation with higher degrees of safety, efficiency, and flexibility.

## SMART I

### Strategy

- We have enhanced the core business, and actively develop and research new products. Upholding "Core-based, Emerging-business-oriented, Customer-centric, Constitution Transformation, and Extensive Alliance," we ensure development of ESG and sustainability, becoming the leader in smart living and the agent of digital economy empowerment.

### Management

- ICT technologies combine with the characteristics of 5G with high speed, low delay and large connectivity, the new ecological chain of 5G industry will be jointly built through the alliance of industrial innovation technologies at home and abroad.

### Action

- CHT is the first telecom operator to launch 5G services.
- We are the first telecom operator that obtained dual certifications in "the regulatory standards for the testing of 5G NR" from the NCC.
- We have developed an IoT application platform using our own innovative technology.
- Cross-border development: AI, IoT, AR/VR/MR, video streaming and self-driving cars.
- Certificate of Conformity for Privacy Policy issued by SGS

### Response

5G consumer applications p.75-77

### Target

#### Short-term:

- We have initiated an "customer-centric" organizational structure to build the next-generation cloudbased intelligent networks and present innovative products and applications via extensive alliances with an aim to become the Leader in Smart Living and Agent of Digital Economy Empowerment.

#### Mid- and Long-term:

- Penetration rate of 5G users reaches **30%**
- Over **16,000** 5G base stations
- Fostering **3** emerging businesses worth tens of billions of NTD

### Indicator

- GRI** 2,578 patents accumulated
- CHT** NT\$3.77 billion of investment in R&D
- CHT** 1,157 R&D employees

5G gave rise to the development of smart application service industry. Constructing the 5G ecological chain together with domestic and international companies to build 13 vertical markets across 7 categories, endeavoring to offer competitive solutions through a better integration of the hardware strengths in the industry and the software energy of telecom services.

\* For more 5G Vertical Applications: [🔗](#)

**Smart port with inspection innovation to put personnel at ease:  
the first 5G smart port unmanned vehicle integrated application test site in Taiwan**

- Through the integration of group resources and the partnership with the port company to build the Port of Keelung into a domestic smart port. With drones, unmanned vessels, and underwater maritime robots introduced, combined with the 5G private network, AI smart analytics, and the smart UTM monitoring platform, the well-rounded solutions are available to improve the efficiency of seaport inspection.
- The innovative application won the "Smart Places Project of the Year" (the only winner in Taiwan) of 2022 Asia Communication Awards and the "2023 Smart City Innovative Applications Awards."

**Smart manufacturing to promote digital transformation of industries:  
the first 5G private network demonstration site for the PCB industry in Taiwan**

- The private network of Chunghwa Telecom is combined with smart manufacturing application to provide the innovative service model of "rent-to-own" to accelerate the 5G private network services in the electronics manufacturing industry as well as elevating the competitiveness of the domestic O-RAN equipment via the trial in the domestic manufacturing arena.
- The 5G private network applications are introduced into the PCB industry to remedy the pain point of unstable network connectivity, effectively provide a stable network environment, and solve the costs of frequent adjustment to production lines and challenges in hardware connection owing to process requirements.



## 5G Consumer Applications

### Medicine

**Collaboration with Taichung Veterans General Hospital for Free Clinic via Telemedicine**

Chunghwa Telecom joined hands with Taichung Veterans General Hospital to apply the 5G private network to free clinic via telemedicine. The high-resolution images are sent to the high-speed intelligent audio-visual collaboration platform of the Taichung Veterans General Hospital. As an auxiliary tool of telemedical consultation for rural areas, it enables real-time connection to the medical team at the hospital for treatment consultation, benefiting the people with relatively scarce medical resources and bridging the access to medical services in rural areas.



### Entertainment

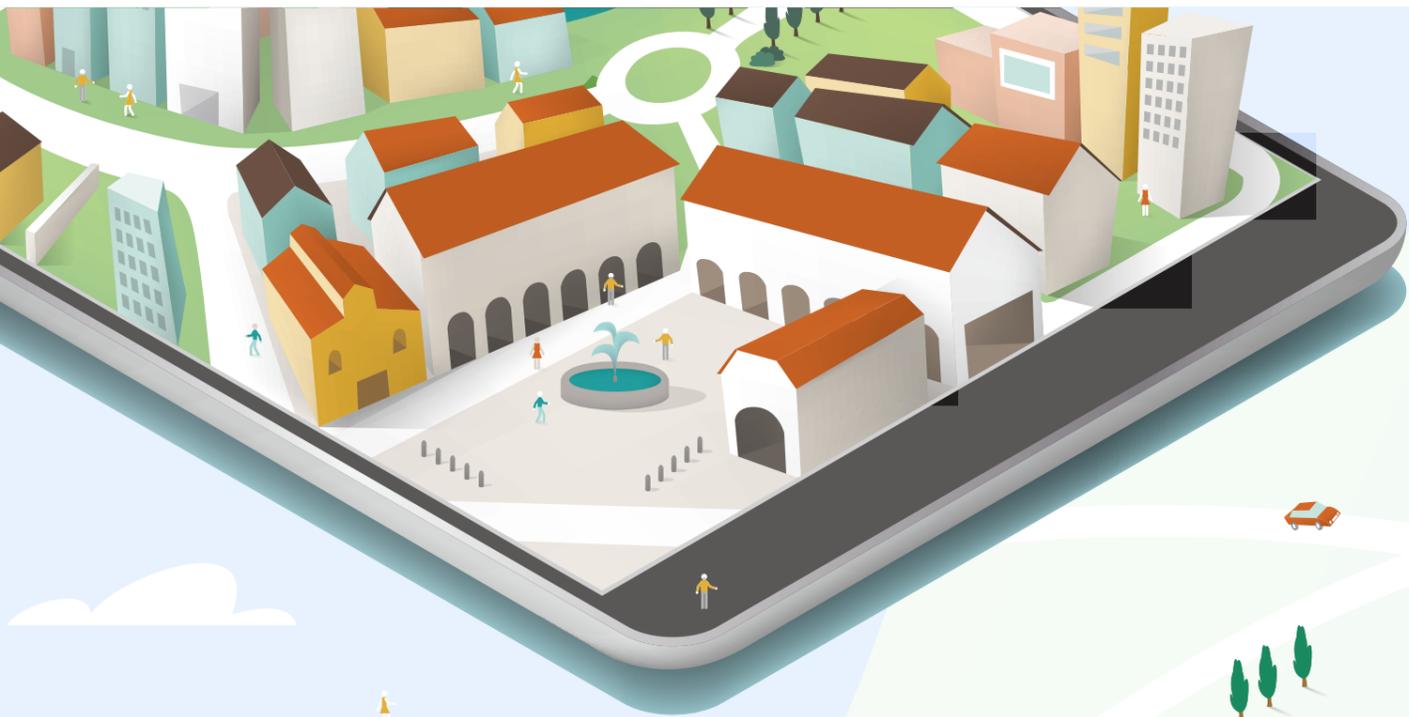
**Lantern Festival Rave! Chunghwa Telecom Debuts the 4D Omnidirectional AR Service in Taiwan**

The Main Lantern of the 2022 Taiwan Lantern Festival, "Blessings in the Brilliant Flight of the Phoenix" was lit up in at Weiwuying, Kaohsiung City. Leveraging the characteristic of ultra-fast network speed of 5G technology, Chunghwa Telecom debuted the 4D omnidirectional AR services in Taiwan. 20 high-speed cameras were set up for motion capturing. With the real-time video stitching technology, a 4D environment of special effect was born to capture the marvelous moments of consumers standing out from 2D.

**The New Future of 5G MR Multimedia Entertainment Industry**

We worked with Sanlih Entertainment Television on the "5G MR Interactive Concert Integration and Development" project, presenting the concert live offline and online with virtuality and reality intertwined via signals of 5G technology. The 5G technology was fused with the concert at Legacy. The space was connected, and technology was introduced, to give birth to the innovative form of music performance, teleporting us to a new realm of metaverse in 5G mixed reality.

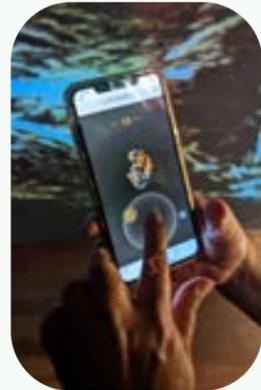




## Education

### 5G Technology to Unveil a New Look for the Cultural Exhibition Sector

Chunghwa Telecom worked with the Gold Museum to present the "5G XR Experience for Guided Tour" service. With technological innovation and interactive showcase as well as through the two major experiences of "Venture into the Mine VR Experience" and "Immersive Projection – The Golden Days," the virtual guided tour service to the mine is created. With that, the true story of the discovery of a rich gold mine is transformed into an adventurous experience of fantasy.



### Digital Empowerment for SMEs

The small and medium-sized enterprises and micro-enterprises were supported during the pandemic to survive, innovate, and thrive. With "CBMP" and "integration of multiple media platforms," Chunghwa Telecom improved the digital competences of SMEs, created their own brands, and promoted digital tools, empowering the owners with competences in smart application and digital economy. The mobile payment application of "touch-free payment & paperless transaction" was promoted in Yunlin County to build a smart business environment. Hence, the competence of sustainable operation is elevated in the post-pandemic "digital transformation."



## Transportation

### Elderly Care for a Happy Living in Pingtung

Through the smart technology "Pingtung Well-being D+ Card," the anti-lost positioning services, emergency rescue, and IoT independent health management services for the elderly are available at the first demonstration community of anti-lost services in Taiwan established at Sishih Village, Zhutian Township, Pingtung County. The application was recognized by the 2020 Smart City Outstanding Contribution Award - Smart Health as well as the "First Place, Elderly-Friendly Group," Annual Corporate Social Responsibility & ESG Award by Global Views Monthly.

### Smart Vehicle Road Cloud Service

The ICT technology is leveraged for application of innovative 5G services to smart transportation, transforming the base stations of Chunghwa Telecom into the Internet of Vehicles (IoV) and vehicle detectors, so as to provide priority signal services for emergency vehicles. In addition, the CVP big data of telecom services is employed to detect flow of turning vehicles and travel time at intersections. Hence, the signal system is optimized, with the travel speed of road users during peak hours elevated. The application was recognized by the "Service Innovation Award in the Evaluation of 5G Smart Transportation Subsidy Program of the Ministry of Transportation and Communications."



## Housing

### The First Smart Green Building for Employee Dormitory at Chunghwa Telecom

Chunghwa Telecom spent nearly NT\$300 million to build the employee dormitory with dual label certifications in "Green Building" and "Smart Building." Also, the highlight services like AI smart home, facial recognition, smart parking lot, IoT sensing, MOD multimedia services, and Intelligent Operation Center (IOC), intuitive building management via BIM, safety and disaster prevention, and home healthcare were introduced to foster the new generation of high-quality living environment, integrated with five elements of green, intelligence, health, innovation, and circularity.



# The Creative Industry Pilot



The SDGs CHT contributes to in this section



## Innovative R&D Results in 2022

Taiwan External trade development council (TAITRA)

2 gold, 1 silver, and 5 bronze medals secured at the 2022 Taiwan Innotech Expo

Apart from ongoing strengthening of the core telecom business, Chunghwa Telcom also actively invests in innovative ICT R&D to create new momentum for revenue growth. With the dedicated innovation and R&D institution, Chunghwa Telecom Laboratories, we uphold the values of "innovation, accountability, customer-oriented, and integrity." Setting eyes on the development of advanced network communication technologies and innovative ICT applications, we transform needs of customers into convenient and useful services, endeavoring to live up to the value of "customer-centric" to foster the vision.

\* Chunghwa Telecom Laboratories [🔗](#)

### Overview of Chunghwa Telecom Laboratories in 2022

- **1,157** employees (nearly **6%** of total) with **89%** being R&D personnel.
- The funding for R&D totaled NT\$**3.77** billion, which was **1.74%** of the consolidated operating revenue.
- The laboratories secured **181** new product/ technical patents (**173** domestic and **8** overseas) to a total of **2,758** (**2,495** domestic and **263** overseas). **914** of the patents are currently in force (**822** domestic and **92** overseas).
- Publication of **69** papers on journals (**11** internationally and **58** domestically) and **51** papers on conferences (**37** internationally and **14** domestically).

### The Telecom Laboratories Human Resources Structure

		Doctor	Master	Bachelor	Others
Number (Ratio)	♂ male	82 (7.09%)	811 (70.10%)	12 (1.04%)	2 (0.17%)
	♀ female	11 (0.95%)	212 (18.32%)	10 (0.86%)	17 (1.47%)

## Innovation + Creativity to Create Sustainable Output Values

We constantly encourage creativity and innovation and adopt strategies of concurrent advancement internally and externally. In response to the digital convergence and the cultural and creative trend, CHT presents Digital Innovation and Application Series themed with digital living. We uncover top-notch innovative talents through the competitions while allow creativity to be realized so as to elevate Taiwan's soft power in innovation.

### 5G Technology for Azure Sustainability

CHT worked with the unmanned vessel, Marine Vacuum Cleaner, developed by Azure Alliance. With the outstanding 5G communication capability in speed and low latency, we control remotely and clean efficiently the marine debris.

Thanks to the introduction of 5G technology, Marine Vacuum Cleaner can thus remove marine debris rapidly, serving as the last line of defense for the environment before waste at the port flowing to open waters, which is also in line with the sustainable development goal in "I Protecting" of Chunghwa Telecom.

### Biodiversity: Promotion and Education

In response to the concept of biodiversity, during the New Year's Eve at Taipei 101, in the brand spirit animation of "Foresee Brilliant Sustainability," the three sustainable navigators, Co-Living Bear, Co-Benefit Whale, and Co-Prosperity Bird were employed to convey the spirit of sustainability and biodiversity of co-living with nature, co-benefit in connection, and urban-rural co-prosperity. The notion of sustainability was realized into products, services, and living applications to promote and educate the general public on sustainability.

## FunPark Creative Storytelling Digital Picture Book Contest

Organized for 10 consecutive years, the one-and-only "FunPark Creative Storytelling Digital Picture Book Contest" aimed at digital content creation for preschool and elementary school students in Taiwan inspires imagination from children for them to boldly showcase their creativity and further use digital tools to create picture books unique to their own.

The "FunPark Little Storyteller" category was added in 2022. Story-telling enabled conversion of text reading into oral expression skill, cultivating rich imagination and creative thinking in students.



\* FunPark Creative Storytelling Digital Picture Book Contest Official Website: [🔗](#)

## Sustainability Bond to Invest in the Sustainable Industries

The sustainability bond aiming to allocate funds in projects with environmental and social benefits is issued. The green investment plan categories encompass climate change adaptation (green building construction); energy efficiency improvement and energy conservation (PSTN system IP equipment replacement). The social benefit investment plan categories include basic service needs (installation of 5G base stations in rural areas); affordable living infrastructure (broadband construction in rural areas and offshore islands); socioeconomic development and rights protection (EYE Social Innovative Call Center).



## 5G Innovative Application Competition

"Chunghwa Telecom 5G Innovative Application Competition" was organized continuously to inspire teams to develop more cross-field, new-generation 5G application ideas.

In 2022, more than 700 participants in 183 teams of students and companies registered. The entries submitted mainly fell into categories of smart inspection, smart manufacturing, smart transportation, and smart video streaming applications. These entries not only showcased quality technology and innovation energy, but also presented a high degree of completion as a whole, fully demonstrating the soft power of Taiwanese talents in technology.



## Biodiversity: Plan of Sports and Tree Planting

The 3-year plan of "Winning Matches, Planting Trees" combines sports with environmental protection. In addition to supporting the development of outstanding athletes of the country, we also contribute to biodiversity. We cooperate with the Forestry Bureau. For every victory of the sustainable development ambassador, TAI Tzu Ying, in a badminton game at home or abroad, Chunghwa Telecom shall donate 100 trees. It is estimated that 15,000 trees will be planted for Earth in the three years to come to put biodiversity protection into practice to safeguard Earth.



# The Happiness Value Protector



The SDGs CHT contributes to in this section



## Ensuring Employees' Happiness

### A Competitive Compensation System

Chunghwa Telecom has an independent Compensation Committee to oversee the salary determination process. We offer competitive compensations to talents with potential. Through a transparent remuneration policy, employees are rewarded in line with the operational performance of the Company. The Company offers equal compensation for all entry-level employees of the same grade. Those who possess relevant skills and work experience may have compensation evaluated based on educational background, career experience, expertise, and professional qualifications. Under no circumstances will compensation ever be determined by gender or racial differences.

## SMARTI

### Strategy

- Promotion of recruitment of talents in various areas via diversified recruitment channels in the spirit of "one more ounce"
- Assurance of rights at work and freedom of association for all employees with the commitment of "employee at ease" to improve the labor-management communication and dialogue mechanisms

### Management

- Execution of the three-level mechanism of assessment, audit, and coaching for call center customer service quality
- Signing of Employment Contract by all employees for rigorous compliance with the laws and regulations like the Labor Standards Act and regular organization of labor-management meetings
- Implement the principle of "no layoff and no pay cut"

### Action

- Promotion of the personal information manager and auditor certification system
- Provision of various, well-rounded, and quality service channels, online and offline
- On-site observation by external consultancy firm under commission
- Dedicated training units and OHS management units established
- Transparent and diverse employee communication and grievance channels
- Certificate of Conformity for Corporate Code of Conduct (CoC) issued by SGS
- Diverse benefit packages in place and retention of young talents

### Response

- Electromagnetic radiation testing service
- The only Taiwanese telecom carrier with an established union
- The first telecom carrier in Taiwan to receive ISO 45001 certificate

### Target

#### Short-term:

- "Creation of Talent Pool" for smooth succession of emerging technology talents and core talents
- Making personalized high-quality products and services available to all our customers

#### Mid-term:

- 2025: **30%** of variable compensation for senior managers tied with ESG/sustainable development performance
- 2030: Emerging technology workforce reaches **50%**

### Indicator

- CHT** One-time special bonus of NT \$**15,000** for all employees
- GRI** The base salary at CHT as **1** time of that in Taiwan; the average salary at CHT as **3** folds of that in Taiwan
- GRI** Training Hours Per Capita: **57.65** hours
- GRI** "Collective Agreement" employee coverage of **99.6%**
- GRI** No violation of laws concerns personal information or product labeling

The additional remuneration regulations for the remuneration of senior managers are in place, which directly links the ESG performance of senior management to variable compensation. In 2022, the linkage ratio is set at 10%, and the coefficient of linkage factor will be raised year by year to strengthen the linkage between ESG performance and variable compensation, aiming for the goal of 30% in 2025.

### Protecting the Rights of Workers

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

Item	Personnel at the Highest Governance Body (Board of Directors)	Senior Management
Fixed Salary and Variable Compensation	<ul style="list-style-type: none"> <li><b>Fixed salary:</b> the monthly salary is paid on a monthly basis in line with the compensation standard of the Ministry of Transportation and Communications and with approval by the Board of Directors.</li> <li><b>Variable compensation:</b> include annual bonuses, performance bonuses, special corporate bonuses, etc.</li> </ul>	<ul style="list-style-type: none"> <li><b>Fixed salary:</b> the monthly salary is paid on a monthly basis in line with the employee salary table.</li> <li><b>Variable compensation:</b> include annual bonuses, performance bonuses, special corporate bonuses, employee compensations, etc.</li> </ul>
Separation Payment	The retirement pay is made in line with the retirement pay standard in the "Employees' Pension, Consolidation Pay, and Severance Pay Guidelines."	
Remuneration Clawback Mechanism	In the event of a material risk incident that brings impact to the corporate goodwill or major failure in internal control, Article 12 of the Standards Governing the Administrative Rewards and Discipline of Chunghwa Telecom Personnel stipulates that in the event of any malpractice carried out by any employee, CEO included, the reward(s) approved for such employee is to be revoked upon disciplinary actions as the collected prize amount shall be clawed back in accordance with pertaining regulations.	
Retire Benefits	The benefits are offered in line with the existing standards, with no significant different between senior and general employees.	

The highest compensation personnel

All employees, excluding the highest compensation personnel

	Total annual compensation Increase / Decrease Ratio	<b>2.3</b>		Total annual compensation	2022	2021
	Median annual compensation Increase / Decrease Ratio	<b>5.0</b>		Total annual compensation	<b>6.45</b>	<b>6.62</b>
Increase / Decrease Ratio			<b>0.46</b>			

2022 Base Salary in Taiwan NT\$ 25,250

Base Salary NT\$ 33,730

Average Salary in the Telecom Industry NT\$ 75,544

Average Salary NT\$ 71,576

Notes: 1. Average Salary in the Telecom Industry: According to the "Monthly Wage and Productivity Report, December 2022" published by the Directorate General of Budget, Accounting, and Statistics.  
2. Base Salary of CHT: The average salary level in December 2022.

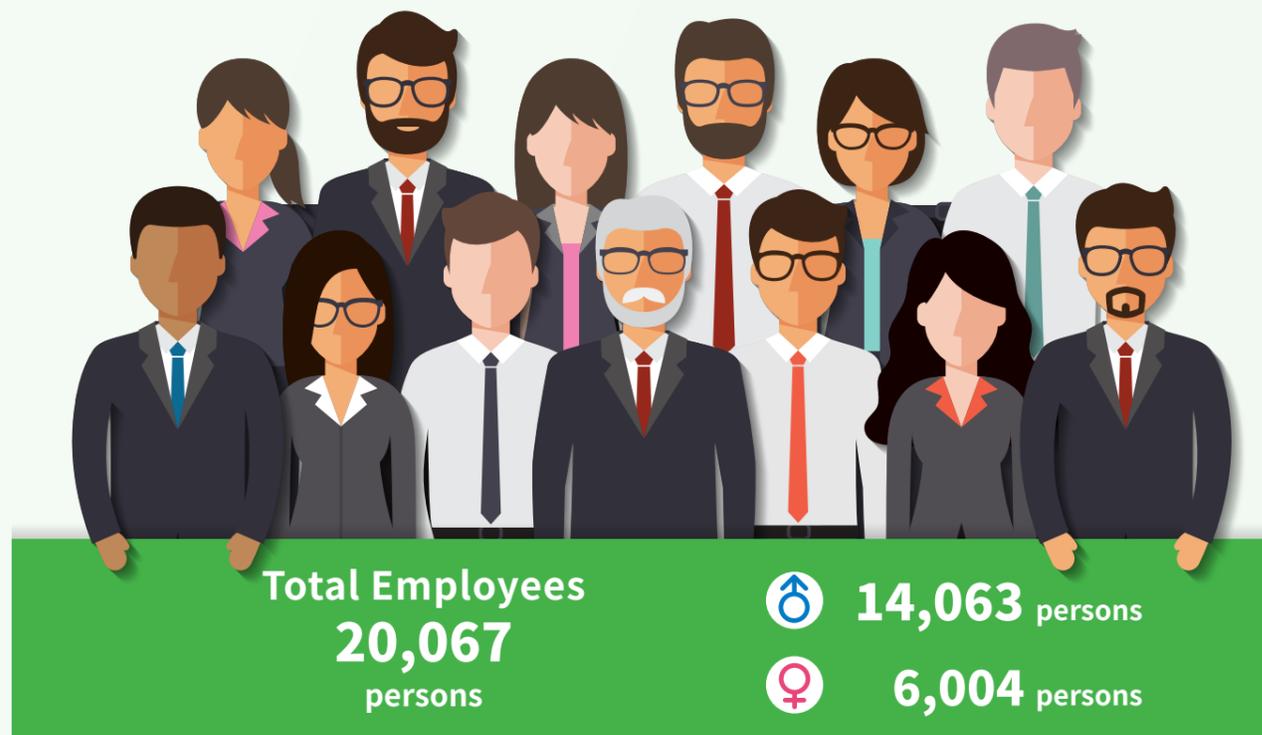
### Benefits Expense of Full-time Non-supervisory Employees

Item	Unit	2021	2022	YoY
Full-time Employees	Person	20,322	19,886	-2.1%
Average Salary	NT\$ Thousand	1,507	1,548	+2.7%
Median Salary	NT\$ Thousand	1,478	1,510	+2.2%

Notes: 1. The number of full-time employees is calculated on a "yearly average" basis. The total number of employees of the year (including the ones on leave without pay, separated, and retired) is subtracted by the number of managers before calculating the yearly average number of employees of the year based on the months of pay to the employees in service in a year, instead of based on the number of employees at the end of a year.  
2. The definition of non-supervisory employees excludes Managers. For the definition of managers, please refer to p.42-45 of the Annual Report.

### Human Resources Structure at CHT

In 2022, CHT has more than 20 thousand employees with an average age of more than 50 years old. The total number of retirees is over 1,500 (accounting for 7.83% of the total workforce). There will be more than 5 thousand employees retiring over the next 5 years, and 50% of the employees will be eligible for retirement over the next 10 years. Current senior management is included in this retirement tide. In this regard, we proactively initiated diverse talent employment strategy. Aside from recruitment of entry-level personnel, we also explore elite manpower from elsewhere via external talent acquisition as well as actively carry out talent cultivation and function inheritance actions to enhance our human capital.



Permanent Employees	19,999 persons	14,016 persons	5,983 persons
Temporary Employees	55 persons	41 persons	14 persons
Non-Guaranteed Hours Employees	13 persons	6 persons	7 persons
Full-Time Employees	20,054 persons	14,057 persons	5,997 persons
Part-Time Employees	13 persons	6 persons	7 persons

Notes: 1. The fixed-term contract personnel are "temporary employees," mainly for special projects and industrial-academic collaborative projects, while the non-fixed contract personnel are "full-time employees."  
2. The non-guaranteed hours employees work in the business groups, mainly for the analyses of the Southeast Asian market and smart solutions.  
3. The total number of employees (temporary and non-guaranteed hours employees included).  
4. The manpower data are calculated in "head count" and "at the end of the reporting period."

**Non-fixed-term Contract Employees**

<b>Total 19,999 persons</b> = <b>14,016 persons / 70%</b> <b>5,983 persons / 30%</b>		persons / %	persons / %
	Under 30 years old	1,146 / 6	304 / 2
	30~50 years old	7,061 / 35	2,572 / 13
	Over 50 years old	5,809 / 29	3,107 / 15

Notes: 1. The welfare system at the Company mainly applies to the "non-fixed-term contract employees."  
 2. The employees on leave without pay are excluded from the non-fixed-term contract employees (full-time employees).

**Number of Persons by Job Grade and Gender Pay Ratio**


	Senior Executive and Higher		Executive		Intermediate Executive		Entry-level Employee	
Under 30 Years Old	0	0	0	0	0	0	1,146	304
30-50 Years Old	1	0	0	1	214	69	6,846	2,502
Over 50 Years Old	31	8	28	4	1,321	388	4,429	2,707
Ratio	0.16%	0.04%	0.14%	0.025%	8%	2%	62%	28%
Base Salary Ratio	1.10	1	1	1	1.02	1	0.95	1
Average Salary Ratio	1.01	1	0.98	1	1.03	1	0.94	1

Notes: 1. For all grades, basic salary is defined as the fixed salary (monthly).  
 2. For all grades, average salary includes fixed salaries and variable portions (including the monthly salary, year-end bonus, bonus, etc.).  
 3. Levels of all grades: Basic 0-10; Executive 11-16; Intermediate Executive 17; Senior Executive 18-22.  
 4. Senior managers (VP or above) are 100% nationals of R.O.C.

**2022 New Recruitments**
**1,510 persons / 7.6% of total employees**
**Gender**

1,177 persons 77.9%  
 333 persons 22%  
 8.4% 5.6% % of Each Category of Employees

**Age**

< 30 Years Old: 526 persons (34.8%)  
 30-50 Years Old: 978 persons (64.8%)  
 > 50 Years Old: 6 persons (0.4%)  
 36% 10% 0.07% % of Each Category of Employees

Note: New recruits rate = Number of new employees/Number of people at the end


**Resignation of New Recruits**

28 persons  
 1.9% of all new employees

**2022 Employee Turnover**


male female

**1,575 persons / 7.9 % of all employees**

< 30 Years Old: 29 / 6 persons (2.53% / 1.97%)  
 30-50 Years Old: 103 / 30 persons (1.46% / 1.17%)  
 > 50 Years Old: 1,166 / 241 persons (20.07% / 7.76%)

Notes: 1. Turnover rate (resigned+retired) = Number of turnover employees/Number of people at the end  
 2. In 2022, there are 173 employees resigned (0.87% of all employees), and 1,402 employees retired (7.01% of all employees).  
 3. The turnover rate in 2019-2021 are, 5.76 %, 7.77%, and 8.97% (Number of turnover employees/ [(Number of people at the beginning + number of people at the end)/2])

**Workers who are Not employees**

Number of workers who are not employees	14,247 persons
The most common types of workers	Professional service workers
Worker's contractual relationship with CHT	Agency workers; employees to suppliers
Type of work	<ul style="list-style-type: none"> <li>The types of work are mainly Service and Construction, in which Service includes security, cleaning, customer service, store services, IDC line maintenance, cybersecurity, as well as system development and maintenance.</li> <li>Construction includes civil engineering, utility and air-conditioning engineering, equipment engineering, mobile communication engineering, engineering project, etc.</li> </ul>

Note: The persons included in the statistics are full-time manpower with 40 work hours per week at the significant suppliers with annual transaction amount totaled NT\$50 million or more.

**Human Resource Structure of Honghwa International Subsidiary in 2022**

male female


**Honghwa**

All employees are nationals of R.O.C.



	Non-fixed Term		Fixed Term	
Under 30 Years Old	547	377	0	0
30-50 Years Old	2,447	2,589	0	13
Over 50 Years Old	42	108	1	1
Total	3,036	3,074	1	14
Disabled Employees (weighted)	31/32	27/33	0	0
Indigenous Employees	26	29	0	0

**Gender Equality and Diversity**

Chunghwa Telecom is committed to implement gender equality and diversity policy, valuing equal pay and impartiality in promotion opportunities, protecting employees from discrimination, harassment, or unfair treatment due to race, gender, religious belief, age, political inclination, or any condition thereof protected by the pertaining laws and regulations.

In 2022, female staff accounted for 29.92% of the total, and 21.51% of the managers (director level and above) were women. To conform to the essence of the Gender Equality in the Employment Act, the Company has outlined its sexual harassment prevention policy and established a "Complain Investigation Committee" that specializes in the handling of employee complaints about work-related discrimination and improper behavior. The investigation committee has 5 members, 3 of whom are female. Our effective control has resulted in no incident of discrimination being reported and substantiated through investigation in 2022.



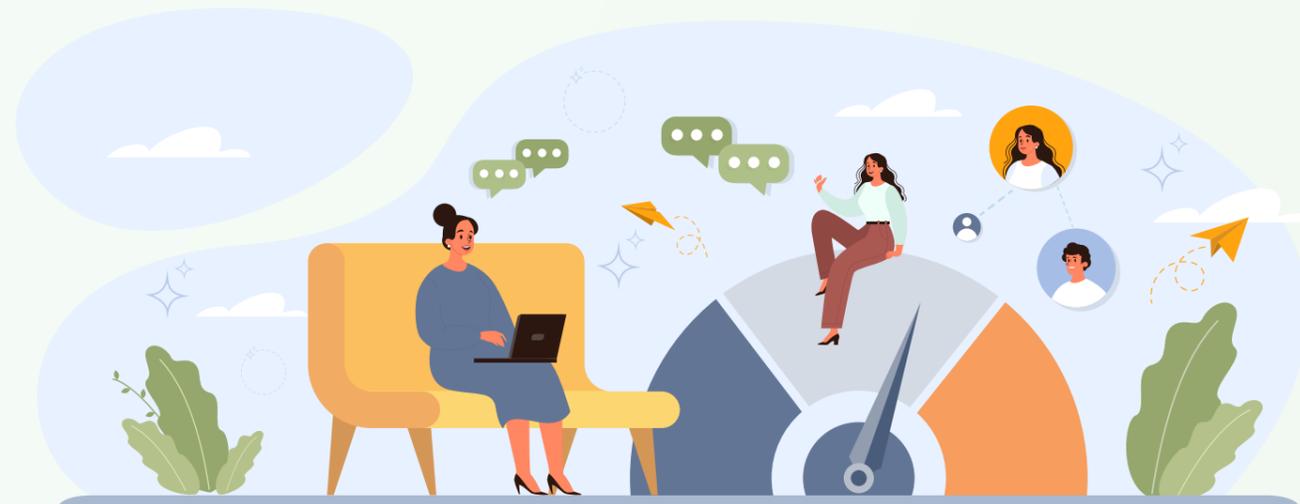
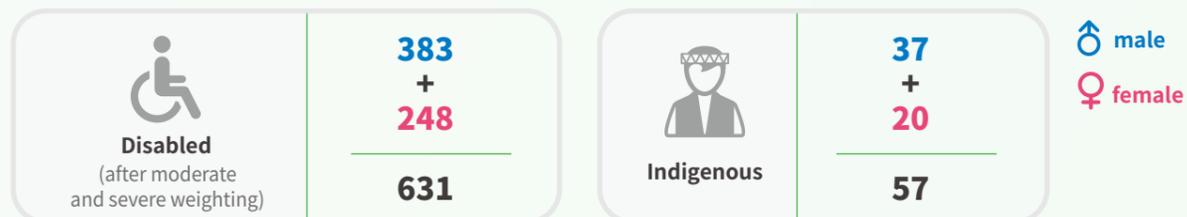
### Valuing Gender Equality

1. Our performances in workforce diversity and gender equality have been recognized by the Gold Award in "Technology R&D" of 2022 Happy Enterprise Awards of 1111 Job Bank and included in the "The World's Top Female-Friendly Companies 2022" by Forbes as the first among the surveyed companies from Taiwan.
2. Chunghwa Telecom takes measures of two aspects to elevate the importance of female at work and create a work environment of diversity and inclusivity, including:
  - Recruitment: In the process of training for manager recruitment interview, topics of gender equality are introduced.
  - Training: Apart from emphasis on the concept of gender equality, the improvement of leadership function and willingness to promotion are employed to raise the percentage of female managers gradually. Across the manager training programs like three-grade trainings and talent development programs in 2022, the female employees receiving transfer training were maintained at 30% or above.
3. The Women's Power Star Program shall be launched in 2023 in an attempt to further implement the ideas of inclusion, equality, and tolerance to create a talent-retaining environment.

### Emphasis on Underrepresented Populations

We attach great importance to the rights of the underrepresented groups. In recruiting entry-level personnel, the relevant bonus regulations are in place for the indigenous, individuals with disabilities, and individuals with citizenship registered in remote areas. We also improve the environment and welfare measures at work to put the concepts of diversity and inclusivity into practice.

- **Employees with disabilities:** Greatly exceeding the statutory requirement, the number of such employees employed in 2022 is at 3.39 times of the statutory standard (186 persons to be employed required by law; 631 persons employed actually).
- **Indigenous employees:** A total of 57 indigenous employees were employed in 2022. We respect their cultures and customs and offer indigenous ceremonial leave in compliance with the laws. There was no violation of the right to work or human rights.
- **LGBTQIA+ employees:** Such employees are treated equally in the existing welfare mechanism, regardless of gender identity thereof. In January 2023, through the special promotion "Talk about Gender Diversity from the Golden Bell Awards," the employees were able to appreciate and respect diverse gender groups.



### The Only Telecom Carrier in Taiwan with a Union

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

In addition to the union established by Chunghwa Telecom, employees have also assembled 14 other unions under the organization. Until December 2022, 99.62% of employees were union members. For the employees not covered by the collective agreement, we follow the consistent labor terms and labor contract regulations per the corporate policy, regardless of the collective agreement coverage.

Note: The non-fixed-term and fixed-term employees covered by the collective agreement is 99.62%, while the non-fixed-term employees covered thereby is 99.95%.

### Open Communication and Grievance Channels

We have open communication channels in place to ensure that employees needs or suggestions are heard. Any violation or misconduct in the workplace can be reported to the relevant department using the channels provided. There were 74 complaints in 2022, including behavior as disrespect of the CHT system, principles, administrative management, and violation of the employee code of conduct or other misconduct, which were investigated and responded appropriately. There were no human rights related cases in 2022.

The whistleblower's identity will be rigorously kept in confidence. The whistleblower will not be subject to unfavorable treatment such as discharge, demotion or transfer, or salary reduction. An official protection system for anonymous whistleblowers with legal protection is in place. We hold regular labor-management meetings to ensure labor's rights. There are 9 representatives from each side, employer and employees. The chair is held by each side in turn. The Chairman and President of Chunghwa Telecom engage irregularly with the Chairman of the Union, Directors, and Supervisors in meetings, in person and by telephone.

The Chairman of the Chunghwa Telecom Workers Union is entitled to participate in disciplinary review meetings, performance appraisals, and business report meetings to ensure that workers are kept up to date on Company news. In 2022, the Company held 6 nationwide labor-management meetings during which employees and the employer were able to reach consensus on many issues. Meetings for the discussion of matters can be convened, or if any change to work conditions is necessary.

### The Employee Grievance Channels



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

## Focusing on Employee Training and Development

Our fundamental business focus is "core competitiveness, professionalism, efficiency, and touched service", and we seek to develop innovative talent through a combination of internal and external training.

We have a comprehensive training system to assist employee development in all dimensions. The system starts with the incorporation of "needs analysis" and "in-depth planning" and is followed by performance assessment and review after the program ends. This systematic approach enhances professional skill and work efficiency, and helps the Company improve its coordination of human resources. Also, it is connected with the operational benefits of the Company.

### Talent Cultivation and Empowerment Program

The CHT Talent Cultivation and Empowerment Program aims to achieve Attraction of new recruits, Growth of employees, Leadership of managers, Opportunities for talents, and Winning in relay, a.k.a. AGLow as the cultivation basis.

Different professional courses are designed for employees of various positions from new recruits to current employees. Relevant trainings are tailored to managers of different levels. Also, accelerated training and development are available for employees with potential for them to be management candidates.

## 5G X ABC Employee Digital Empowerment Program

In 2022, we promote "5G X ABC employee Digital Empowerment Program": AI & AR/VR, Big data & Block chain, Cloud & Cyber Security. By cultivating employees' creativity, assisting in their career development, and the 5G X ABC smart application, we accelerate the improvement of employees in professionalism and digital competence, in order to meet the needs of talents for industrial digitalization and intelligent transformation.

The relevant measures include:

### 1. Global Public Cloud Certification Trainings:

- Trainings and certification consultation for AWS, Azure, and GCP organized in 2022 with 57 certificates of global public cloud services obtained

### 2. 5G x ABC Professional Program (NT\$127 million invested in total as of 2022)

- Establishment of industrial ecosphere and innovative applications, with 50 participants passing the certification of the emerging technology innovation business model and application programs for certification
- 2,395 individuals trained in the courses of the 5G Technology Study series for the talent pool necessary for the 5G development
- 12 topical lectures organized, such as "Development Trends of 6G Mobile Wireless Communications" and "Development Trends of Renewable Energy and Wearable Applications," with a total of 901 participants

### 3. 5G Testing & Training Venues Installed (NT\$10 million invested in total as of 2022)

- 41 sessions of 5G training courses or seminars organized with activities like training courses and campus visits combined for 1,316 participants



### Diverse Learning Channels

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

### Dedicated Training Units

Chunghwa Telecom has founded the Telecom Training Institute that specializes in training technical as well as managerial talent. A Talent Development Team has also been established, with the President as convener, to conduct regular reviews of the planning and outcome of training. This is important to ensure that the training outcome is closely aligned with the operational policy to achieve a "seamless combination of training and practice". It was awarded with "Certificate of Talent Quality-management System (TTQS) - Gold" by the Workforce Development Agency, Ministry of Labor in 2022.

\* [Chunghwa Telecom Telecommunication Training Institute](#)

## Self-directed Learning with Continuing Education Online

In addition to in-person training, Chunghwa Telecom Training Institute offers ample and diverse online learning resources for employees to deepen their expertise and improve their management functions, facilitating the growth and career development of employees:

- Chunghwa Telecom eLearning: Diverse learning modes were available, including in-person courses, full e-learning courses, and hybrid courses of in-person and e-learning, offering an innovative and learner-centric diversified e-learning platform. There were 580 new courses available in 2022, with 653,154 employees accessing e-learning and an average satisfaction of 5.68 out of 6 points.
- External online platform – Hahow for Business: The external learning platform Hahow for Business was introduced in 2022 for employees to deepen their expertise and develop a secondary expertise. In 2022, a total of 2,094 employees participated, registered for 8,869 courses, and completed 4,536 courses, with an average learning time of 4.9 hours per person.
- Manager training with online resources combined: A total of 7 digital learning materials have been procured since 2020 for specific management classes or all managers to access for learning, so as to strengthen and improve the managerial functions and management quality.
- Chunghwa Telecom Learning Community Portal: The curriculum design and course delivery are executed via communities of learning areas/programs to boost the learning effectiveness.



## Cybersecurity Cultivation, Network Security Resiliency, and National Security Protection

1. Aiming to realize the cybersecurity vision of "establishing the most valuable, secure, reliable, and trustworthy telecom service provider that meets international standards," Chunghwa Telecom has been designated as a critical infrastructure protection (CIP) exercise unit by the Executive Yuan for 8 consecutive years and recognized as an Outstanding Entity in the National CIP Exercise for 3 consecutive years.
2. With NT\$246 million allocated for the "Cybersecurity and CI Development Program," aside from the cybersecurity and CI professional course series, we developed the cybersecurity learning map and designed the general and professional certification mechanisms in line with the level of professionalism to actively cultivate cybersecurity talents.
3. The cybersecurity and personal data protection courses were promoted company-wide with 28,912 participants (100% employees and suppliers included) in 2022. The cultivation result highlights:
  - (1) **Cybersecurity management courses and certificates:** Such as Internal Management Specialist, internal auditor certificate, and ISO 27001 internal auditor training.
  - (2) **Technical course on cybersecurity:** An experiential learning environment "Cybersecurity Hands-on Practice Classroom" was constructed to simulate the real cyber attack and defense environment, so as to boost the cybersecurity attack and defense capabilities of IT talents, with 260 sessions organized for 20,861 participants in 2022.
  - (3) **Professional course on the national critical infrastructure protection:** Implemented the national critical infrastructure (CI) security protection in compliance with the government, and planned and conducted CI-related education and training, with 4 sessions organized for 2,523 participants in 2022.
  - (4) **Security code training course:** To improve software developers of internal employees, external contractors, and bidders on the ability of security coding, a total of 26 courses were held for 561 participants in 2022.

### New Employee Orientation

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

## Recruitment and Development of the New-Generation Talents

Formulating the golden trinity of Chunghwa Telecom, "Innovation First, Technology First, Talent First", we endeavored to develop emerging businesses in 5G, IoT, AI, and cybersecurity through the following strategies to actively build a workplace where young people can excel.

- Recruiting professional talent in ICT, AIoT, 5G application, technology innovation, and other new business opportunities.
- **The nurturing of the next-generation talent:** The Company introduces new talent-training programs on a yearly basis. It provides employees with professional and diverse training options, and certifies the development of skill.
- **Emerging businesses:** In response to innovative information and communication technologies and cross-disciplinary knowledge integration, we are actively cultivating forward-looking technology service integration professionals.
- **Next-Generation Growth Camp:** With courses combined with campus experience and challenge activities, participants could quickly learn about how the 5G technology drives the digital transformational across various vertical markets and the 5G development strategies of the Company. In 2022, 7 sessions were organized, cultivating 1,059 individuals.

### Nurturing of Professional Talents

Chunghwa Telecom is dedicated to providing employees with a diverse learning environment, and combine career development and learning experience through job rotations, project assignments and overseas assignments. In 2022, Chunghwa Telecom training expenses exceeded NT\$460 million and employee training sessions totaled 1,152 thousand hours. We encourage employees to commit themselves to long-term learning. We provide a subsidy of up to \$30,000 per semester for further studies and an additional 320 hours of official leave per semester for doctoral students. Subsidies were given to 200 employees in 2022 and the Company compensation amounted to NT\$3.229 million. The subsidy for advanced studies, academic degrees, or certificates is 100% applied to all employees.

	2020	2021	2022
Total Training Expense (NT\$ thousand)	493,000	451,380	460,843
Training Per Capita (NT\$)	23,555	22,294	23,043
Total Training Hours	1,045,267	1,148,601	1,152,937
Training Hours Per Capita	50	57	57

### Employee Happiness at Work and Engagement Survey

To improve the happiness at work and engagement of employees, we conduct relevant surveys on a regular basis. In addition to probing into employees' job satisfaction and needs, we propose relevant improvement measures on the basis of the feedbacks to improve the work environment and sense of happiness of employees.

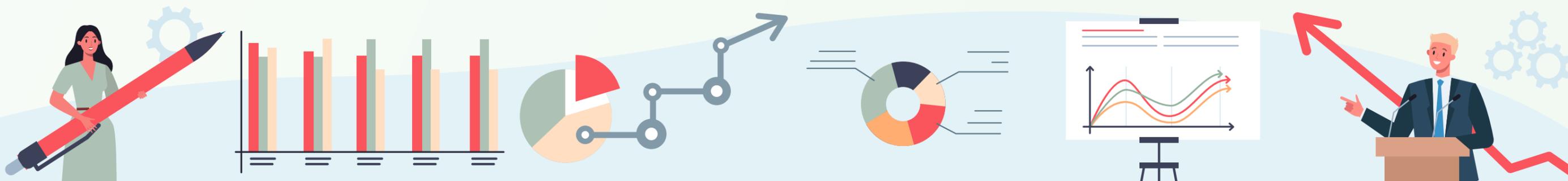
In 2022, the average employee happiness was 87.32 points, and the engagement was 92.38% (in terms of TOP LEVEL%). The focused direction of improvement is managerial leadership as well as diversity and tolerance. Relevant mechanisms include organizing manager communication meetings, offering leadership improvement courses and expert lectures for managers, conducting diversity employee experience surveys, and planning for programs and measures related to gender equality and diversity. Based on the survey results, we provide specific responses as well as ongoing communication and improvement in response to the feedbacks from employees and offer a better work environment and benefits for employees, so as to boost employees' trust and sense of identity with the Company and to strengthen our corporate competitiveness and sustainable development capacity.

### Fair Evaluation

Chunghwa Telecom now applies "Employees Performance Evaluation Guidelines" which are used in the appraisal of employee performance to develop the corporate culture where employees, customers, shareholders, and the Company will all be winners. Supervision will be provided for underperforming employees who will be guided until the appropriate improvement has been made and they are back on track.

CHT conducts performance appraisal at two levels: general staffs and senior managers. Performance appraisal involves a series of face-to-face discussions between employees and line managers at the beginning of a year to set personal goals, and at years end to evaluate the degree of employee contribution to the Company.

In addition to linking employees' salary bonus to their annual performance, CHT has established a reward of senior employees, which is payable on a one-year deferred basis and apply to all employees, provided that the employee has a certain standard of continuous service and recent performance appraisal results.



## Health and Safety Management

### Introduction of ISO 45001 Occupational Health and Safety Management

Chunghwa Telecom was the first telecom service provider in Taiwan to adopt the OHSAS 18001 Occupational Health and Safety Management System. The employee safety and health management is exercised via "institutional" and "systematic" mechanisms. In 2022, all of our 27 institutions completed the third-party verification to ISO 45001. We shall better our objectives in workplace safety and health management, "ongoing improvement in safety and health facilities; establishment of a safe, healthy, comfortable, and friendly working environment; reduction of work-related accidents".

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

We actively participate in activities related to healthy workplace. Until 2022, 25 branch institutions (4 were added in 2022) were presented with the awards of "Healthy Workplace Certification – Health Promotion Label", "Excellent Healthy Workplace," among others. We support exercises for all and have invested software/hardware resources to promote the trend of exercise at workplace. In 2022, we were further recognized by Taiwan iSports from the Sports Administration, Ministry of Education.



\*For more details of GRI 403 and ISO 45001 Occupational Health and Safety Management of Chunghwa Telecom, please refer to [\[link\]](#)

### The Dedicated Occupational Health and Safety Management Unit & Broadened Labor Participation

Dedicated occupational health and safety management units are instituted at Chunghwa Telecom and the subordinate institutions thereof in compliance with the laws. The units are responsible for formulation of occupational health and safety management plans, promotion of matters such as identification, assessment, and management of hazards in working environment and operations, implementation of autonomous inspections and environment monitoring of machinery and equipment and before operation, as well as ongoing improvement to the health and safety facilities to foster a working environment that is safe, healthy, comfortable, and friendly.

The "Labor Safety and Health Committee" has been established at all CHT institutions with labor representatives accounting for one third or above of the seats. The committee convenes quarterly to deliberate, coordinate, and advise on matters pertaining to health and safety. There is also Labor Safety and Health Department, which is responsible for the planning and implementation of labor safety and health matters.

The head office's Labor Safety and Health Committee has 12 members, 4 members are from the labor union, accounting for 33.34%. 4 meetings were held in 2022 and 17 proposals were presented by the labor representatives, 9 were related to the refinement of safety and health management, and 8 were related to employee benefits. All of the above are solved.

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

To better provide immediate medical assistance and attend to worker health, we engaged 28 full-time nurses and contracted 21 physicians in 2023 for this specific purpose. Also, we set up health service centers at ten locations, offering health services, consultation, and care.

The contracted doctors help with the on-site inspection at the offices, offer advice in line with human factors engineering for employees using computers at work, and adjust the heights of computers and chairs. The procurement of office equipment, besides in conformity to "the materials technical specifications" of the Company, is in compliance with national standards. Also, we conduct monitoring and keep records of the temperature, humidity, illuminance, noises, indoor air quality (CO<sub>2</sub>) in the working environments for our employees to ensure the comfortability and safety of working environments. All the monitoring results in 2022 were in line with the regulations.

Besides full-time physicians, there are 25 sets of workplace health management physiological (blood pressure) measurement system are deployed in our facilities. Combined with our "Enterprise Healthcare System (EHS) and Personal Health Record," our employees can monitor the changes in their blood pressure anytime.

### Health Promotions for Senior Employees

The average of our employees' age is over 50. The health checkups for the elderly in 2022 promoted autonomous health management actions from inside out. Apart from physical exercise, the support system among friends was established through the activities.

- **Health checkups:** including hearing test, cervical spine X-ray, macular degeneration of the eyes, coronary artery narrowing and incomplete heart valve closure to ensure a sound working of human body.
- **Personal health risk assessment and management:** Carry out health care and management for high risks, and hazard control, work environment improvement, or work adjustment and functional training when personnel are found to be unsuitable for specific jobs.
- **Health promotion lectures:** CHT established "H channel" health series video-based program, providing employees with knowledge and skills for epidemic prevention and healthcare A total of 24,145 employees accessed the program in 2022.



### Reducing Occupational Hazards

We actively reduce and minimize occupational hazards via aspects of system, execution, and training.

- **System:** The incident reporting and handling procedures for occupational hazards and dangers reporting have been stipulated, and hazard identification and risk assessment are enforced. The Chunghwa Telecom Work Accident Guidelines contain detailed procedures for assessing occupational illness. Employees suspected of having become ill as a result of their occupation are assisted with an application for verification at the local municipal/county/city authority, in accordance with the Protecting Workers from Occupational Accidents Act.
- **Execution:** Source management is implemented, and construction risks are carefully managed. All high-risk operations are subject to approval by the ICT. Workers are also required to take site pictures with handheld devices and upload them to the monitoring system so that precautionary measures can be identified and taken to prevent such accidents as falls, oxygen deprivation, etc.
- **Training:** Necessary occupational health and safety education/training is provided to all workers for work and disaster prevention. we organized 218 training sessions in 2022 and there were 28,569 enrollments.

## The "eSafe Wizard" App

The OHS mobile management tool developed on our own, the eSafe Wizard App allows employees and contractors to report safety violations and apply for operation permits. The App also allows us to remotely perform spot checks on safety compliance, moving the entire management process onto the cloud. It is completely paperless, instantaneous, and highly effective.

- Through the eSafe Wizard App, the completion rate of permit applications for operations of hot work, work aloft, scaffolding, power or fire protection interrupted hit 100%, and hazard notification reached 100%.
- The feature of "on-site inspection and automatic check" was newly developed in 2022, for inspection to various types of construction sites and timely correction of any non-conformity in venue or equipment. Also, the management and audit to multiple sites are executed via centralized control and management to achieve the purpose of manpower conservation.
- By the end of 2022, it has been promoted and applied to the Network Technology Group, Mobile Service Northern Branch, Mobile Service Central Branch, and Mobile Service Southern Branch. From 2023 on, it will be gradually extended to other institutions.

Table of Work-related Injuries and Illnesses of Employees and Non-employees in 2022

		CHT	On-site Contractors
Injury Rate (IR)	Main types of work-related injuries	Traffic accidents, fall, tumble	Traffic accidents, fall, tumble
	Number of hours worked (hr)	39,998,000	11,884,000
	Number of recordable work-related injuries (persons)	36	10
	Recordable work-related injuries rate	0.90	0.84
	Number of fatalities as a result of work-related injury	0	0
	Fatalities as a result of work-related injury rate	0	0
	Number of high-consequence work-related injuries (number of fatalities excluded)	0	1
Occupational Disease Rate (ODR)	High-consequence work-related injuries rate (number of fatalities excluded)	0	0.08
	Main types of work-related ill health	None	None
	Number of recordable work-related ill health	0	0
	Number of fatalities as a result of work-related ill health	0	0
		0	0

- Notes:
- Number of hours worked: 8 hr\*number of people\*number of working days. (calculated on the basis of 250 working days in 2022.)
  - Fatalities as a result of work-related injury rate = (Number of fatalities as a result of work-related injury / Number of hours worked) × 1,000,000.
  - High-consequence work-related injuries rate (disabled for more than 6 months) = (Number of high-consequence work-related injuries / Number of hours worked) × 1,000,000.
  - Recordable work-related injuries rate =(Number of recordable work-related injuries / Number of hours worked) × 1,000,000.(Source: Accident counts reported in line with "Chunghwa Telecom Work Accident Guidelines" with the employees of Chunghwa Telecom as basis for the number of injuries.)
  - Statistics do not include commuting accidents.
  - Definition of On-site Contractors: individuals or organizations that work on the operation sites of Chunghwa Telecom. Statistics were compiled based on the data of HongHwa International Corp.(The number of people with HongHwa International Corp. is the sum of actual monthly persons on-site in 2022.)
  - 1 count of serious work-related injury (fatalities excluded) of an on-site contractor: a motorcycle traffic accident at work for Honghua International Corp., resulting in a leave for more than 6 months (based on the investigation result, follow-up measures such as road safety and defensive driving training and strengthening traffic safety promotion were adopted, along with inclusion in the annual performance appraisal). The statistics does not cover commuting accidents.

## Health Promotion Activities

Providing a safe and healthy workplace is a basic requirement to our employees. On average, employees spend over a third of their day in workplace. Hence, apart from a wide range of benefits, including health checkup, keynote speeches, and promotional activities, we also commit ourselves in the promotion of sports in workplace and for national sport. In 2022, we spent NT\$70,911 thousand on employee health care.





### Health Examination of Employees and Dependents

- The Company offers much better care than required by law and employees are given the choice of various health check-up packages. A total of **18,578** employees had checkups in 2022.
- Family members are also entitled to checkups at the same rate, and a total of **2,575** persons participated in 2022.



### Employee Health Service

- Provide employees health consultation via online or phone appointment. Physicians visited the plants **34** times a month. Sessions were for **3** hours and each patient was allocated **30** minutes.
- Healthcare personnel use the Employee Health Management System for the analysis and evaluation of health records. Where necessary, extra consultations can be arranged between the physicians and the employees for proper guidance and healthcare.

Thirty-minute medical consultation with a physician (30 minutes / per person)  
**3,411**

Consultation with a nurse  
**41,807**

On-site visits by physicians  
**415**



### Employee Assistance Program (EAP)

CHT was one of the largest corporations in Taiwan to start promoting the Employee Assistance Program (EAP) since 2007.

- The EAP carries out **5** consultation sessions each year, in which outside experts are contracted to help employees resolve their legal, medical, family, workplace, and stress problems.
- Case managers made **3** visits and completed **450** service sessions in 2022.



### Healthy Workplace

- The noise level, lighting, temperature, humidity and air quality of our offices is tested regularly, and the offices are also cleaned and maintained on a regular basis.
- All offices feature ergonomic chairs, natural ventilation, indoor plants and other elements of a healthy work environment provided.



### Free Influenza Vaccination

- Free influenza vaccination is available for all employees who fit the requirements for vaccination at public expense. Registration can be done online and **1,634** employees were vaccinated.



### Employee Cafeteria

- Our employee cafeteria offers a diverse range of nutritionally balanced meals to choose from.
- All food suppliers are subjected to rigorous review to ensure the safety of food served to our employees.
- SGS, a professional audit entity, is commissioned for tests of ractopamine, animal drugs, preservatives, and sulfur dioxide.



### Telecommuting

- Call forwarding, instant messaging, and video conferencing.
- OA Online Administrative Operation: using HiGate for telecommuting or mobilized administrative services on cell-phones.
- Shared offices have been set up in the six special municipalities since 2022, for employees that commute to work from afar to work nearby instead and take care of their families.



### Flexible Working Hours

Flexible start and finish times for employees to achieve a balance between work and family:

- Telecommunication Laboratories, Chunghwa Telecom implement of working hours from 07:30~9:30 to 16:00~18:00.
- Headquarter and Information Technology Group implement of working hours from 07:30~9:30 to 16:30~18:30.



### Employee Health Promotion

- A total of **12,839** employees participated in **164** health seminars. **2,140** employees attended 34 educational trips. Health examinations were given to **886** employees in 10 sessions and 18,165 employees participated in **237** large-scale events (e.g. President Cup Basketball Championship, Taoyuan Longtan Sightseeing Grand Pond Hiking, Tamsui Fisherman's Wharf Hiking) and club activities(e.g. labor clubs like aerobic dance, yoga, Tai Chi, etc.)
- The Company published two health-related articles each month about the concept of disease prevention.



### Balancing Work and Life

- Chunghwa Telecom has **29** hostels that provide travel accommodation, encouraging employees to achieve a balance between work and life.



### COVID-19 Epidemic prevention leave

- Official leave for epidemic prevention: **201** personnel, **5,687** hours in total.
- Official leave for vaccination: **13,714** personnel, **68,844** hours in total.
- "Epidemic prevention childcare leave" for taking care of children at age **12** or under without pay or impact to attendance: **52** personnel, **2,482** hours in total.

## Building a Happy Business

Employees are the foundation for the growth and competitiveness of Chunghwa Telecom. We offer a commitment to our employees refrain from making layoffs and salary reductions. As Taiwan is about to see a super-aged society, Chunghwa Telecom actively responds to the national childbirth policy and retains young talents. Offering diversified childbirth and welfare measures that are superior to statutory standards, we encourage employees to "be willing to marry, dare to give birth, and happy to raise" so as to live up to a happy enterprise for sustainable development.

The achievements of Chunghwa Telecom's long-standing commitment to employee care have won accolades by the public. In 2022, it received the Gold Award in the Technology R&D category of "2022 Happy Enterprise" from 1111 Job Bank! Furthermore, it was included in the list of "The World's Top Female-Friendly Companies 2022" of Forbes, in which Chunghwa Telecom ranked first among the surveyed companies from Taiwan!

### Childcare-Friendly Workplace

Starting from 2022, Chunghwa Telecom implements childcare-friendly welfare measures as follows for employees to care for their children and families without worries:

- Any employee with the need to care for child at age 3 or under may apply for 1 work hour reduced per workday with full pay and without impact to attendance or performance appraisal. Where both husband and wife are employees of Chunghwa Telecom, both of them are eligible to the application. A total of 1,115 employees applied, creating 86,683 hours to be with and care for their children.
- A total of 16 workplace childcare support centers were set up at 9 locations across six special municipalities for the children and grandchildren of employees aged 2 to 6 years old to access education and care services, so that employees can work at ease with their families well taken care of.
- In 2023, the benefits are planned to be raised further. In addition to the raise in the monthly childcare allowance for employee with child aged 0-6, there is maternity allowance of NT\$20,000 per childbirth available as well.



### Leaves Better than the Statutory Requirements

Item	CHT	Labor Standards Act
Annual Leave	<ul style="list-style-type: none"> <li>• Employment years 7:21 days</li> <li>• Employment years 10:28 days</li> <li>• Employment years 15:30 days</li> </ul>	<ul style="list-style-type: none"> <li>• Employment years 7:15 days</li> <li>• Employment years 10:16 days</li> <li>• Employment years 15:21 days</li> </ul>
Funeral	Better than the statutory requirement for certain kin	Paid leave available for certain kin
Personal Leave	5 days of personal leave with pay	No pay
Family Care Leave	7 days for personal leave and family care leave combined	No pay
Sick Leave	Full salary	Half salary
Menstrual Leave	Full salary	Half salary
Maternity Leave	42 days regular leave, rest day, and national holiday not included	8 weeks regular leave, rest day, and national holiday included
Pregnancy Checkup Leave	10 days	7 days
Miscarriage Leave	Full salary	No pay
Pregnancy Checkup Accompaniment and Paternity Leaves	10 days	7 days



Item	Activities and Description	Number of Participant / Beneficiaries	Contribution / Supplement
Parental Leave Allowance	We offer a 6-month parental leave allowance in compliance with the Employment Insurance Act. CHT also offers additional monthly allowances totaling half the sum assured under the Labor Insurance Scheme.	109 persons	NT\$ 12,809 Thousand
Childcare Allowance	Employees with children aged 0 - 6 years old will automatically receive childcare allowance of NT \$ 6,000 per year.	3,597 persons	NT\$ 17,508 Thousand
Sports Activity	Regional activities include 3 road running events, 87 hiking activities, 52 ball sports activities and 272 other activities (e.g. stair-climbing, health exercise, strolling, and health promotion lectures).	35,054 persons	NT\$ 9,648,135 Thousand
ESOT	Applicable to all employees, all employees are free to join	17,079 persons	NT\$ 484,493 Thousand
Dependent Education Subsidy	Twice a year (two semesters).	17,528 persons	NT\$ 74,622 Thousand
Wedding Subsidy	A wedding subsidy is available for employees who are to be lawfully married.	270 persons	NT\$ 675 Thousand
Childbirth Subsidy	Employees or their spouses are eligible for a childbirth subsidy.	416 persons	NT\$ 104 Thousand
Funeral Subsidy	A funeral subsidy is available in the event of the death of a parent, foster parent, step-parent, the spouse or a child of an employee.	721 persons	NT\$ 361 Thousand
Work Hour Reduction for Childcare	Application for 1 work hour reduced per workday with pay available for any employee with the need to care for child at age 3 or under.	1,115 persons	NT\$ 20,803 Thousand
Recreation and Sports Space	Includes an integrated stadium, swimming pool, tennis, badminton, basketball, and table tennis courts, multi-functional event space, karaoke room, and employee dormitories.		Total 15,608 pings

Note: The benefits are provided to the non-fixed term employees of Chunghwa Telecom, but not for those of subsidiaries.

### Better Maternity Benefits than the Legal Requisites

We have been implementing an unpaid childcare leave system since 2006 to help employees juggle their attention between work and family. The employees who have taken childcare leave are entitled to receive a six months parental leave allowance from the authority under the Employment Insurance Act. While six months expiry, the Company will further pay an additional childcare subsidy of half assurance sum of Labor Insurance Scheme according to its policy. In 2022, 109 employees applied for unpaid childcare leave; 109 employees applied for childcare leave allowances. NT\$12,809,031 was paid out as childcare leave allowances. In 2022, the epidemic prevention childcare leave was provided additionally in response to the pandemic.



Unit: persons

Year	Item	♂ Male	♀ Female	Total
2022	The Number Qualified for UPL for Raising Children 2022 (A)	1,449	504	1,953
	Number of Applications for UPL 2022 (B)	30	79	109
	Application Rate for UPL (B/A)	2.07%	15.67%	5.58%
	Number of Expected Reinstatement 2022 (C)	17	62	79
	Number of Applications for Reinstatement 2022 (D)	21	71	92
	Reinstatement 2022 (D/C)	123.53%	114.52%	116.46%
2021	Number of Reinstatement 2021 (E)	13	73	86
	One Year Retention after Reinstatement 2021 (F)	13	71	84
	Retention Rate 2021 (F/E)	100%	97.26%	97.67%

- Notes: 1. The number of employees entitled to apply for a parental leave of absence in 2022 (A): calculated as the number of employees who have the three-year-old or below children (according to the database with the dependents profile.)  
 2. The number of expected reinstatements 2022 (C): The number of employees who applied from 2020 to 2022 and should be reinstated in 2022.  
 3. The number of actual reinstatements 2022 (D): The number of employees who applied from 2020 to 2022 and were reinstated in 2022.  
 4. Reinstatement rate: (actual number of reinstated employees that year/number of employees who should have been reinstated that year) × 100%  
 5. Retention rate: (the number who continued working after reinstatement/reinstated number for the previous year) × 100%. The number of persons who continued to work for one year after reinstatement in the previous year includes those who remained in employment without pay again.

### Retirement Benefits

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

- The Labor Standards Act: The Company makes monthly pension contributions of up to 15% of an employees' monthly salary to the pension fund. This fund is held under the auspices of the Labor Pension Supervisory Committee. The current balance of the pension fund account is 36.3 billion.
- The Labor Pension Act: The Company makes monthly contributions of no less than 6% of an employee's monthly salary. These contributions are deposited in the employees' pension account held by the Bureau of Labor Insurance of the Ministry of Labor, in accordance with the Contribution Rate Sheet approved by the Executive Yuan.

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

### Lifelong Learning and Training Programs

To help our employees to adapt and create quality lives after retirement, Chunghwa Telecom Training Institute was commissioned to organize "Care Program for Retirees' Sweet, Happy Lives". A total of 9 sessions were organized with 529 person-times involved in 2022. Also, we continued to contribute to "Chunghwa Telecom Retirees Association" with an amount of NT\$4.5 million to support them to organize relevant activities. We also donated NT\$1.5 million for travel activities and NT\$300,000 for the meal expenses of all volunteers across branches during the Lunar New Year.

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

## Human Rights Value Protection

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



On the issue of information equality, we ensure a free flow of information globally, transparency in global roaming charges and competition, support to the telecom development in developing countries, provision of convenient access to telecom services for individuals with disabilities, and protection of people's freedom of speech on telecom networks.

In addition, we regularly conduct human rights due diligence internally in accordance with the UN "Guiding Principles on Business and Human Rights" to ensure that all human rights issues in the operating value chain can be assessed. As for partners, due diligence is conducted on the companies invested each year, and our "Code of Conduct," "Ethical Corporate Management Best Practice Principles," and other relevant policies are extended to subsidiaries and invested companies to jointly implement the concepts of human rights and business ethics, so as to effectively manage various risks and maintain them to the minimum level via actions.

The issues with the human rights recognized internationally that are covered by Chunghwa Telecom Human Right Policy

Anti-discrimination, gender equality, freedom of association, collective bargaining, child labor, human trafficking, illegal slavery, forced labor, etc.

Types of stakeholders covered by the policy concerns

Employees, consumers, customers, local communities, female, children, individuals with disabilities, and indigenous peoples

\*Chunghwa Telecom Human Right Policy [🔗](#)

### Human Rights Material Risk Issues



#### Local Human Rights

To fulfill the concept of anti-forced labor and appropriate working environment, we required the bidders to sign a Declaration of Minerals as Conflict-Free during procurement. We evaluated the suppliers to determine if raw materials derived from human rights high-risk areas like the Democratic Republic of the Congo to avoid harm to the basic human rights of local residents while we are providing ICT products and services. We depend on demand and require the suppliers to provide certification of material resources, third-party verification, or accepted auditing to confirm no related violations. We also required that all suppliers complied with the Restriction of Hazardous Substances Directive (RoHS) to prevent hazardous substances from the source endangering local employees, the environment or customers.



#### Customer Human Rights

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



#### Employment Human Rights

We implement the Occupational Health and Safety Management System (ISO 45001) and continue to improve the working environment and act in regards to safety and health facilities and measures to actively ensure employee protection.

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

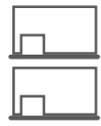


#### Information Equality

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

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

**2022 Value Chain Human Rights Evaluation Results**

Subjects of the Value Chain	Location / Amount	Evaluation Mechanism	Evaluation Percentage	Percentage at Risk	Description / Boosting Mechanism
 CHT owned institutes at 1 to 2 lower levels	28	<ul style="list-style-type: none"> <li>Labor-management meeting</li> <li>Collective agreement</li> <li>Workers' Union meeting</li> <li>Annual human rights event inspection</li> </ul>	<b>100%</b>	2.6%	<ul style="list-style-type: none"> <li>Certain institutions violated the social regulations and OHS, which were corrected immediately in line with regulations.</li> <li>Labor rights were protected via labor unions and signing of Collective Bargaining Agreement.</li> <li>There was no risk involving labor environment in 2022.</li> </ul>
 Subsidiaries	18	<ul style="list-style-type: none"> <li>Annual ESG implementation inspection</li> </ul>			
 Re-investment Companies	15	<ul style="list-style-type: none"> <li>Annual ESG implementation inspection</li> </ul>	<b>100%</b>	2.7%	Some institutes were in violation of regulations. Suggestions for improvement have been provided and will be tracked and managed continuously.
 Upstream and Downstream Suppliers	Tier 1	1,915	<b>100%</b>	0.2%	<ul style="list-style-type: none"> <li>Some suppliers had violated the labor laws and regulations.</li> <li>Continue to follow-up of suppliers with identified risk to see if improvements have been made through Supplier Conference and other channels.</li> </ul>
	Critical Tier 1	187			
	Critical Tier 2	23			
 The Public	All consumers	<ul style="list-style-type: none"> <li>Diverse compliant channels (including discrimination and harassment)</li> <li>Satisfaction survey</li> <li>Personal information and privacy protection inspection</li> <li>Minority group service mechanism</li> </ul>	<b>100%</b>	0%	<ul style="list-style-type: none"> <li>No discrimination or harassment, or any invasion of CHT customer privacy or misuse of personal information in 2022.</li> <li>Continue to promote the 5I SDGs Initiative to ensure information equality among the groups.</li> </ul>

**Safeguarding Consumer Rights and Interests**

**Digital Transformation of Diverse Virtual and Physical Channel Services**

Chunghwa Telecom values consumers opinion. In addition to conveying technical features of the products and services we offer; we look at the matter from the point of view of the consumer. We provide consumers with the most comprehensive, high quality and efficient services putting a wide and diverse range of service channels at their disposal. By the end of 2022, we had 447 direct physical channel service stores, and 244 franchised stores, a total of 691 service outlets that provide convenient services for all consumers in cities, or even in remote areas in Taiwan.

**Ethical Marketing and Information Transparency and Friendliness**

We provide a handbook about products and services for consumers that details product characteristics and applications, consider the negative aspect of overuse, and has friendly reminders provided while marketing. In addition, Chunghwa Telecom has set up the "Channel Sale Items Management Guideline" and "Channel Sales Items Management Implementation Procedures" to make the display of sales items and operation management consistent throughout all the service and business locations. This ensures a positive service environment for consumers. These are vital for maintaining a superior and professional image as well as the service quality at Chunghwa Telecom. No violations of health and safety and product labeling was reported in 2022.

**Green Services with Environmental Protection and Innovation Combined**

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

**Customer service Kiosks**

These serve as the "Database" for business and engineering-related information. When new information is received, it will be verified according to an SOP. Afterward, an FAQ will be further drafted and uploaded to the customer information station for use by the Chunghwa Telecom customer service personnel (at service outlets and call centers) and the Internet counter.

**Consumer Hotline**

Provides complete information on the features of products and services, and related special offers.



**Refined Customer Service**

Chunghwa Telecom provides services which are refined, thoughtful and professional to build warm atmosphere around customer relations. We use big data analysis to learn the true needs of customers so that we can offer thoughtful and customized services and products.

To maintain a decent and stable service quality, Chunghwa Telecom customer service hotline has been certified to various international standards over the years, including ISO 10002, BS 10012, and ISO 27001. Dedicated to the "customer-centric" experience optimization effort, it employed big data analysis to probe into key elements of customers' concern and truly listened to customer needs for an ongoing process optimization and system functionality improvement. In recent years, in response to customers' needs for digital services, it bettered itself in the development of smart customer service. With the innovative collaborative model of humans and robot combined, it gave birth service that are more sophisticated, thoughtful, professional, and convenient, which not only elevated the efficiency of customer service operation but also fostered optimized experiences and values for customers.



## Customer Service Excellence Awards (CSEA)

### Best Service Innovation Enterprise

The Further Upgrade of Customer Service Hotline Innovation Application

With the intelligent human-robot collaborative model for customer service rich in both warmth and speed, we work ceaselessly to create a better service experience for customers.



### Best Customer Service Contracting Enterprise

1922 Hotline to Demonstrate the Ample Energy of Customer Service

The "customer service contracting project team" was established to assist the government in promoting not-for-profit social aids as well as 14 projects of public welfare service hotlines, including the 1922 Hotline for epidemic prevention, contributing to the country as a force of stability for people's minds during the epidemic.



## Promoting "customer-centric" transformative strategies

The services online and offline are integrated to carry out multiple customer experience optimization projects:

1. In response to the trend customer App usage, the "CHT App (Customer Service) upgrade" project was initiated to offer diversified, digitalized service channels. The application amount raised by 1.6 times, with 2.1 times of growth in number of reports accepted. App downloads increased by 833,000 and usage increased by 5.11 million, effectively reducing the number of paper applications and mailings for transfer payments.
2. To realize a smart governance and accelerate the digital transformation, the "omni-business online customer service," with AI and human text-based services combined, offers online customer 24/7 online services for all businesses. The amount of service offered rose by 43% in 2022.
3. To implement digital equality and care for cellphone users without Internet-access, the SMS-based customer service is available for the customers to send "800" to "800" via the free SMS service. With no installation or login required, the customers can access 19 common services. 531,000 customers accessed the service in 2022.
4. Through the mechanism of "business opportunity forwarded by customer service to stores," customer interests are intrigued online and directed for business conclusion offline. 44,000 business opportunities were forwarded in 2022. The customer loyalty and stickiness were improved effectively as a result.

### Chunghwa Telecom Customer Service Mechanism Overview



#### Customer Service Location / Scale

The Company has 15 customer service centers, and the number of customer service personnel averages 2,200.



#### Multi-Channel Customer Services

- Webchat
- Social media, "Chunghwa Telecom Dr. Q Fan Page"
- Web customer service center [🔗](#)
- Mobile App
- SMS



#### Training Result

To emphasize the "customer-first" service philosophy and offer optimal customer service experience, The "5-Heart Heart-warming Service Awareness Workshop" was organized for 3 sessions in the northern, central, and southern Taiwan in 2022 to train 63 participants. After the seminar, the seed lecturers were arranged to conduct promotion sessions for all customer service personnel to inspire their service passion as well as improve their service philosophy and communication techniques. In 2022, 18,572 employees received 58 thousand hours of training combined.

Year	Total Participants	Total Training Hours	Average Training Hours
2022	18,572	58,268	3.1
2021	17,917	54,441	3.0
2020	9,853	44,368	4.5

Notes: Due to the pandemic impact since 2020, TTI reduced offline education programs and adopted online programs with shorter hour per session instead. Hence, the trained participants (person-times) increased while the total training hours decreased.

## The Accelerated Expansion of AI Smart Customer Service in the Pandemic Facilitated Customers' Transition and the Advent of Instant Reply Experience

1. Facing the complex process and massive information, coupled with the difficulty in talent recruitment due to a low birthrate, the service quality of the call center is confronted with severe challenges. In this regard, we responded by expanding the introduction of the "AI Smart Customer Service" solution with mechanisms as follows:
  - The self-developed AI robot tailored to local culture in Taiwan provides various smart services. A team of trainers were assembled for an ongoing improvement of the customer service robot. The Automation Anywhere RPA robot was introduced to handle the large number of second-line routine works.
  - The new operational model with an innovative "human-robot collaboration" meets the needs in both customer speed (robot) and warmth (human customer service), demonstrating the well-rounded service advantages online and offline.
2. Further improvement in the service quality of AI smart customer service: we planned to launch the "Smart Customer Service Quality Improvement Plan" in 2023 to upgrade AI trainers into customer experience managers to refine our service quality.

### Commendation for Best Customer Service Personnel

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

### KPIs for Customer Service Hotline

Air counter lines have certified for the ISO 10002:2004 Customer Complaint Management System, making the first telecom company in Taiwan to obtain this certification. The Company views customer complaints as opportunities to make ongoing improvements. The resolution of customer complaints and dissatisfaction is rule-based, and they must be settled within 3 working days. This approach ensures the continuous improvement of service quality.

In addition to the customer service hotline, consumers may also use the corporate website or Representative Line authorized by the President (02) 2344-6789 to raise complaints directly to the assistance of the senior executive. The satisfaction survey in 2022 rendered 4.75 points as a result, exceeding the target of 4.7 points.

KPI	2020	2021	2022
Customer Service Response within 20 Seconds	69.0 %	57.2%	63.1%
Service Satisfaction (5-point scale)	4.75	4.75	4.75

Note: Owing to the pandemic, we diverted our customer service hotline workforce to support the Taiwan CDC Toll-free Hotline 1922 service. The 20-sec answer rate was low as a result, but the overall customer service hotline answer rate was still up to 92%.

## Correction & Prevention E-Platform

For circumstances where customers have poor impressions with the service attitude or professional knowledge during the experience process, we employ the "Correction & Prevention E-platform." Through mechanisms of work assignment by the system and audio file listening by staff, the coaching correction measures in the manner of coaching are swiftly adopted for the services yet to be perfect to assist customer service personnel to improve within a specified time frame, followed by the random check of 3-6 records (or audio files) of similar types of customer service to track and verify the result of coaching correction.

### Customer Satisfaction Survey

We conduct a broad variety of satisfaction surveys to identify the issues of most concern to consumers and their expectations. We use these findings to guide future improvements. After each survey, the opinions and suggestions are conveyed promptly to product or business personnel (including Risk Management and the Public Relations Departments) using the consumer feedback system. Furthermore, consumers opinions are brought to the attention of the senior manager of the product and customer service departments for discussion at monthly meetings to ensure that the consumers expectations receive proper consideration.

Regarding the IPA (Importance-Performance Analysis) items belonging to the fourth quadrant (high importance and low performance) after a review of the results of the annual satisfaction survey, we will request that the relevant functional units conduct further analysis and propose measures for concrete improvement every year. There will also be a follow-up in the next quarter to keep track of the progress of any corrective action found necessary.

### Designate an external market survey company to conduct consumer satisfaction survey

Survey Result (10-point scale)

Large Enterprise	9.09
Small and Medium Enterprise	8.98
General Customer	7.91



### Rigorous Privacy Protection Management Mechanism

Chunghwa Telecom values "Customer Privacy Protection", follows the nation's regulations and stipulates application "Privacy Protection Policy" encompasses all groups, branch offices, subsidiaries, and suppliers of the Company, with rigorous privacy security management and protection measures.

Prior to any business promotion, risk assessment will be conducted to examine and ensure data access in compliance with the regulatory requirements and to check if data protection mechanisms are in place to ensure data protection mechanism integrity and avoid risks in data processing. Regarding the collection, processing, use, and protection of personal data and privacy involved in the operation, aside from compliance with government's relevant laws and regulations, personal data and privacy is used within the defined scope of regulatory requirements and will not be disclosed to a third-party via exchange, lease, or otherwise at will, in an effort to protect the data security and privacy rights of customers. Meanwhile, in response to the potential privacy concerns and risks associated with the AI technology, we make sure that proper management measures are in place in the use of AI technology with reference to the "AI Technology R&D Guidelines."



### Data governance organizations and responsibilities

- Data Governance Committee (Level-1 Organization): The final decision-making body for issues of data governance with President as the Convener
- Data Development Department (Level-2 Organization): Stipulation and promotion of corporate data governance regulations and systems; tracking of implementation results
- Data Governance Team (Level-3 Organization): Data governance implementer to ensure implementation of the data governance system throughout Chunghwa Telecom

### Specific Data Management Mechanisms

In alignment with the major areas of Data Management Knowledge (DMBOK) of Data Management Association (DAMA), constructing data governance framework and management system. As such, it warrants an effective data governance at the Company and the subordinate entities to achieve consistency, availability, security, and compliance in data asset management.

## Privacy Protection Risk Management

- Group-wide risk management: risk and impact assessment are conducted in line with the regulations, formulate privacy risk handling targets and measures, and regularly review and evaluate achievement of indicators. Our performance of cybersecurity and privacy risk management has been incorporated into the monthly tracking by the Risk Management Committee for management. Any material risk issue will be submitted to the Audit Committee or directly reported to the Board of Directors.
- Performance measurement and disciplinary: Our Privacy Policy upholds "zero tolerance" as the overarching principle. Performance in cybersecurity and personal information protection is included in the appraisal of all employees. Any loss due to negligence or any conduct of improper inquiry, acquisition, use, or deliberate leak of customer's personal data is subject to demerit or termination of labor contract at worst.
- External audit: We ceaselessly strengthen the privacy protection procedures, ensure implementation of privacy protection security measures throughout the operation processes, organize trainings pertaining to privacy protection, elevate the overall privacy protection competency of the Company, and examine and evaluate effectiveness in privacy protection measures via regular tests and exercises. Externally, our Privacy Policy has obtained the third-party conformity verification. Also, we conduct internal/external audits and certifications each year (e.g. ISO 27001 / ISO 27011 / ISO 27017 / ISO 27018 / BS 10012 / CSA STAR Certification with ongoing validity) so as to offer consumers a better cybersecurity and privacy data protection.



## Customer privacy rights protection

- Types and Content of Data Collected: When customers access services of Chunghwa Telecom, we collect their personal/private data, including account, browsed webpages or multimedia contents/mobile Apps, out of the regulatory requirement for identity verification or the needs for service provision.
- Data Retention Period: Upon termination of contractual relationship between customers and us, we will maintain and use customer's personal information within the scope and duration required or permitted by the laws and regulations and retain (non-personal) data generated therefrom in a form that does not identify the customer.
- Policy for Disclosure to Third Parties: Personal data and privacy will not be disclosed to a third party by means of exchange, lease, or otherwise at will, unless consented by the customers or specified otherwise by laws and regulations.
- Data Use and Protection: To elevate customer experiences and maintain customer relationship, we use customers' data for analyses to provide optimized, customized services and discount information perfect for our customers, whereas customers may request stop to such use at any given time.
- We have formulated personal data protection policy and relevant regulations regarding the use of personal data to prevent from any unauthorized access, disclosure, use, or tampering of personal data to protect the privacy, data security, and rights of customers. The percentage of secondary use of customer data at Chunghwa Telecom in 2022 is 86.07%.

## Exercise of customer rights

To protect the rights of customers, a variety of channels (including websites, Apps, stores, and customer hotline) are available at Chunghwa Telecom for customers to access and learn about the types of personal information collected and the methods for collection, processing, use, or disclosure of such to a third party as well as the rights customers may exercise. The rights available for customers to exercise are: opt-out, opt-in, access to data held by the Company, request to edit data, request for deletion.

## Requests for customer information received from government or law enforcement agencies

- We are liable to protect customer's secrecy of correspondence and privacy from illegal infringement in accordance with the laws. Only when government agency or law enforcement agency presents Chunghwa Telecom a letter in line with the laws to request access or inquire information of customers to protect public security, fight crimes, or maintain social order can we provide customer information thereto. In compliance with the requirements, dedicated departments and rigorous review procedures for access are in place. Relevant information can only be provided in accordance with the laws upon criteria met, which will not be available otherwise.
- In 2022, 1,374,084 requests were made by the government or law enforcement agencies for inquiries of our user information. The ratio of provision was 55.60% (763,991 requests) and that of rejection 44.4% (610,093 requests), most of which were primarily due to inconformity to the relevant laws and regulations or source data error.



## Personal Data and Privacy Protection Consultation and Grievance Channels

A variety of means are available for customers to exercise their rights. In addition, customers with questions or concerns regarding personal data or privacy may send feedbacks or appeals via various channels, which will be explained by dedicated staff in a professional manner.

## Personal Data and Privacy Protection Grievance Escalation Channels

Should anyone find their personal data and privacy use issues unresolved within 30 days, they are welcome to reach us via the escalation channels as follow:



- Address: No. 21-3, Section 1, Xinyi Road, Zhongzheng District, Taipei City 100, Taiwan (R.O.C.)
- Recipient: Chief Information Security Officer, Chunghwa Telecom Co., Ltd.
- Phone: (02)2344-6789

There were 10 complaints over "alleged information breach cases" filed via the customer hotline in 2022, of which 7 was notified by the National Communications Commission (NCC) and 3 submitted via the customer service hotline (same amount of cases compared with those in 2021, accounting for 0.00001 % of the customer hotline service provided of the year). All the cases were investigated and verified that there had not been any fact of personal data and privacy breach.

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

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

We are constantly expanding our mobile network and have the most 4G cell towers and the coverage in Taiwan. The quality of the network has been recognized both domestically and internationally. To ensure the equal sharing of information, in addition to a positive strengthening of mobile Internet quality in populous metropolitan areas, we have paid more attention to signal coverage in remote areas, achieving 100% total 4G coverage in all towns.

To better implement the digital rights, we proactively respond to the policy target of "2 Gbps network coverage hit 90% by 2025" in the Digital Government Program 2.0 of Taiwan (2021-2025) (DIGI+ Program) of the Executive Yuan, upgrading the fiber optic network coverage and network equipment. Hence, all people may have equal development opportunities. Forward-looking projects of 1 Gbps network service for townships, 100 Mbps network service to villages (boroughs), and submarine cables for offshore islands have been completed in 2022.

## Expand Wireless Hotspots

We have also supported the government initiative for the promotion of free wireless Internet services nationally. Through a reasonable Wi-Fi rental package available, as well as a robust user authentication platform and a nationwide maintenance/monitoring system, we have helped the government deploy free Wi-Fi hotspots nationwide. Our contributions to social events included working with local county and city governments to provide Wi-Fi hotspots and enable Internet access at festive gatherings and international sports events, and installed hotspots for New Year's Eve festivity, the Lantern Festival and for other significant activities. The Company participated in 16 festive occasions, built 65 hotspots in total.

### The Alleviation of Public Concern about Electromagnetic Waves

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

For this issue, Chunghwa Telecom ensures strict compliance with the authority's safety standards when constructing telecom infrastructure. The Specific Absorption Rate (SAR) of all mobile communication products we purchased have complied with the restrictions of the National Communications Commission (NCC), complying with the regulations.

The measurement of the electromagnetic radiation in the environment conforms to the standard of the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which must be lower than 0.45 μW/cm<sup>2</sup> at 900MHz and less than 0.9μW/cm<sup>2</sup> at 1,800MHz. Any resident who has concerns regarding base stations near their home can request a free complimentary measurement of the strength of the nearby electromagnetic waves by calling 0800-580010.

### Advocate the Accurate Understanding of Electromagnetic Waves

- Chunghwa Telecom has been working closely with the Taiwan Telecom Industry Development Association to convey to the public the correct information about electromagnetic waves, by organizing conferences and issuing promotional materials.
- The Company joined NCC and 14 county/city governments nationwide in hosting 25 seminars on the topic of electromagnetic waves and 103 free complimentary electromagnetic wave measurements have been completed to date.
- Local government bodies were issued some promotional material and pamphlets about electromagnetic radiation, which were distributed to the public during various activities to promote proper understanding.

### Types of CHT Base Stations Installed



### Enhanced Disaster Response and Communication Coverage

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

#### Responses Measure

We conduct annual emergency drills for a wide number of different events, from the coordination of network resources and equipment to emergency repairs. Our base stations have been deployed in a diversified manner and are covered by robust backup plans so that failure of circuitry, power or equipment at any base station will not disrupt the operation of other nearby base stations.

#### Occurrence of Disaster

If communication is severely disrupted in the unfortunate event of a natural disaster, we take contingency measures, that depends on the actual circumstances, to maintain communication between the disaster locations and the outside world. These can include microwave radio, satellite transmission, portable base stations, etc.

### Disaster Report and Upgraded Safety

In efforts to minimize the impact of disasters by prompt messaging, the Chunghwa Telecom self-developed "Emergency Response SMS System" apply to Directorate General of Highways'"Traffic Conditions Alert System," and Atomic Energy Council's periodic"Nuclear Safety Drills," and the National Fire Agency's disaster prevention exercises, sent out more than 20,000 SMS alerts in 2022, successfully played its part in disaster prevention information notification.

A Public Warning System (PWS) has been established to support the national policy of emergency message dissemination about typhoons, earthquakes, thunderstorms, large-scale power outage, landslides, roadblocks, reservoir discharge or an outbreak of disease, fast and correctly to specific regions simultaneously, assisting government agencies and the general public improving their disaster prevention awareness and capabilities. The PWS issued over 2,600 times of emergency warnings across Taiwan in 2022, effectively assisting the government in policy delivery and disaster notification.

### Telecom Services and Promotions

#### Fraud Prevention

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

Resources Committed	<ul style="list-style-type: none"> <li>• An average of 8 customer service personnel joined the service every month to work with the Criminal Investigation Bureau in a concerted front-line duty effort from Monday to Friday.</li> <li>• "Disconnection Service Fraud Prevention System" offers information on some suspected telephone gimmicks used for cheating customers and a timely settlement of the problem. An average of 2 customer service person participated in the program each month.</li> </ul>
Prevention of Fraud on Network / Mobile Devices	<ul style="list-style-type: none"> <li>• A two-way, SMS-based authentication system was introduced for small payments.</li> <li>• Anti-fraud SMS messages were sent in compliance with the police department.</li> </ul>
Progress Description in 2022	<ul style="list-style-type: none"> <li>• The hotline received 130,663 calls, and 7,879 cases of fraud were referred to the authorities.</li> <li>• The Company assisted the Criminal Investigation Bureau, National Policy Agency in disconnecting 723 phone numbers, and successfully stopped 2,829 scams.</li> </ul>

### Reducing Negative Impact of the Internet

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

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

# The Green Corporation Pioneer



The SDGs CHT contributes to in this section



## 5G Green Enterprise

Although telecom is regarded as a low-polluting industry, Chunghwa Telecom remains active in promoting various actions of environmental sustainability. It promotes the actions of 5G Green Enterprise with the aim for "sustainable net zero," committed to reducing the energy and resources used in the operations as well as the wastes and carbon emissions.

## SMARTI

### Strategy

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

### Response

- Continuously held CHT ESG Supplier Conference / Sustainable Environmental Visit, education and trainings
- Targets low-carbon industries and promotes solar power

### Management

- "Chunghwa Telecom Company, Ltd. Supplier Code of Conduct" stipulated
- "Chunghwa Telecom Co., Ltd. Procurement Grievance Procedures" stipulated
- "Chunghwa Telecom Energy Saving Policy for a Sustainable Environment" stipulated
- Collect the suppliers information on climate change and carbon emission at least once a year

### Target

#### Short-term (2023)

- Complete procurement of **69** million kWh or more renewable energy
- Promote FSC-certified store bags

#### Mid- and Long-Term (2030)

- 50%** cut in carbon emissions compared to 2020 levels
- 100%** IDCs using renewable energy
- 100 %** significant suppliers "CHT sustainability partner certified"
- Carbon reduction in the supply chain by **22.5%**
- 100%** electrification of service vehicles

### Action

- Efficient energy and resource management using EARTH
- The launch of the 5G initiative in pursuit of profit, environmental sustainability, and social responsibility
- Become the first telecom service provider in Taiwan to implement:
  - Collaboration with the Sustainable Alliance for Low-carbon Economy (SALcE) to issue the Sustainable Partnership Certificate
  - The membership of "CDP Supply Chain Program obtained
  - TCFD Conformity Statement obtained
  - BS 8001 Conformity Statement obtained

### Indicator

- CHT** Nearly **50** suppliers receiving ESG education and trainings
- CHT** Implement the "Suppliers ESG Second Party Audit" on **40** suppliers
- CHT** **24,029** Taiwan Renewable Energy Certificates (T-REC) acquired
- GRI** Scope 1 & 2 GHG emissions of **714,098** t-CO<sub>2</sub>e
- SASB** **4,658.8** kWp of installed capacity of PV systems generated for self-consumption
- SASB** **10,536** metric tons of cellphones recycled with a reuse rate of **90.19%**



## 1G Green Operation

- A self-developed EARTH system for 100% control of environmental information
- Certifications of ISO 14001, ISO 50001, and ISO 14064-1
- The sole telecom company that has obtained BS 8001 Circular Economy verification in the industry of Taiwan
- Certification to the highest grade of TCFD Conformity Check for 3 consecutive years

Note: The certification of ISO 14001 is valid till 2023/12/24, and that of ISO 50001 till 2023/12/2.



## 2G Green Energy

- Self-constructed photovoltaic systems reached a total capacity of 4,658.8 kWp
- Self-built green base stations (solar powered), including two base stations in Ciaotou, Kaohsiung and Yuanli, Miaoli (with an installed capacity of 9 kWp)
- Self-built green base station (wind powered with a total installed capacity of 12 KW), tested by an international qualified institution and certified to IEC 61400-2 small wind turbines



## 3G Green Stores

- Transformed 447 service centers into Green Stores
- Paperless for various services, saving up to 2.23 million sheets of paper and reducing carbon footprints in services
- Products with green marks/labels introduced, and the application collection services for energy-saving subsidy conducted in cooperation with county and city governments
- FSC-certified Shopping bags in conformity to the environmental requirements
- Syntrend Store in Taipei obtained EPA's Service Carbon Label (2020/3/31~2025/3/3)



## 4G Green Supply Chain

- The first telecom company to promote supply chain sustainability management
- Formally incorporated the ISO 20400 Sustainable Procurement Standard
- The first telecom company to participated in the CDP Supply Chain Project to expand the efficiency of carbon management



## 5G Green Procurement

- Reached a total of NT\$17,605 million in green procurement in 2022
- Reached 28.67% of total procurement as green procurement in 2022



	Short-Term	Mid-Term	Long-Term
<b>Green Enterprise</b>	Reduce power usage effectiveness (PUE) of new IDCs to less than 1.6	Maintain at least 5% of the green purchase	Make more than 50% of purchases from the green supply chain
<b>Green Sustainability</b>	Construct more than 4,658 kWp of photovoltaic systems	Construct more than 10,376 kWp of photovoltaic systems	Construct more than 13,600 kWp of photovoltaic systems
<b>Green Innovation</b>	Cumulative 562 units of C-RANs	Achieve 1% annual revenue growth of green products/services	Grow green products/services to account for 20% of total revenue

### Carbon reduction targets and pathway of Chunghwa Telecom

We joined the Taiwan Alliance for Net Zero Emission in 2021, proposed and has been publicly committed to a 50% carbon reduction by 2030 and Net Zero by 2050, put forward our commitment to net-zero emissions by 2050 to the SBTi, and submitted the carbon reduction targets for review by SBTi: a 50% carbon reduction in 2030 compared with 2020 levels, with the carbon reduction pathway:



- To meet the emission reduction requirements of SBT for the ICT sector, we implement emission reduction plans for "data centers, mobile networks and fixed-line networks, and office buildings" respectively. The emission reduction plans are to be planned with reference to the methodologies recommended by international organizations and our government and in line with the situation at present, in order to propose emission reduction plans of the years that follow as the supporting information for the SBT submitted.
- By saving electricity and replacing high-energy equipment, Scope 1 and 2 carbon emissions in 2022 (714k metric tons of CO<sub>2</sub>e) were reduced by 9.6% comparing to the base year levels in 2020.
- Declare RE100 in 2040 and SBT net zero in 2050.

# 1G Green Operation

With the vision of "Green Enterprise", we have made environmental issues an incorporated part of business operation and management. In addition to improving energy efficiency, we also leverage our core function of information communication and actively develop environmentally friendly products and services to inspire a new generation of low-carbon industries.

## Environment ARTificer THEurgy (EARTH)

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



### • Energy Saving and Innovation:

Energy savings and innovation initiatives have been uploaded and implemented in all departments to encourage employees to learn from each other.



### • Performance Evaluation:

Performance evaluation is conducted systematically to encourage employees to contribute to environmental sustainability actions.



### • Power Management:

Request centralized payment of electricity bill; there are more than **66,898** electricity accounts and **3,807,145** units of electricity payment data under management.



### • Water Management:

Request centralized payment of water bill; there are more than **1,359** water accounts and **142,977** units of water payment data under management.



### • Water resources statistics:

**97,247,177** liters of 6 types of water recycling data managed on the system, reducing **20,130** kg of CO2 emissions.



### • Fuel Management:

Fuel use data for hybrid and ordinary vehicles were analyzed to improve energy efficiency and reduce carbon emission.



### • Corporate Tree Planting:

Document type, number, management department and location of trees. There are over **251** varieties of tree and **67,602** tree data saved in the EARTH database.



### • Lighting statistics:

The data of **143,359** entries of **20** types of lighting devices managed on the system at present.



### • Recycling statistics:

**19,332,038** entries of **22** types of resource recycling data managed on the system at present.

## Green Environmental Hostels

Chunghwa Telecom has 18 hostels certified as Green Hotels across the country. Aside from quality hospitality services for the business trips, accommodation, and leisure of the employees with Chunghwa Telecom and its subsidiaries, the hostels do not provide disposable, or consumable, supplies and towels in active response to environmental protection. Various energy-saving measures, such as solar water heaters, air-conditioning with heat pump systems, and replacement with LED lights, are in place to practice actions of environmental sustainability.

## Ecotourism

We regularly organize eco-tours, and integrate environmental education, hoping to provide eco-tours that are both educational and entertaining for our employees, so that they understand the connection between the environment and personal environmental protection. Through responsible tourism practices, employees have learned to respect nature and protect the rights of local residents. We held 414 tours in 2022, costing a total of NT\$9,648 thousand with 35,054 participants.



## Environmental Management Expenses

	2020	2021	2022
Environmental management expense (NT\$ thousand)	329,126	330,550	348,375
Accounted percentage of turnover (%)	0.16	0.16	0.16

## Energy-saving/Emission-reducing Actions

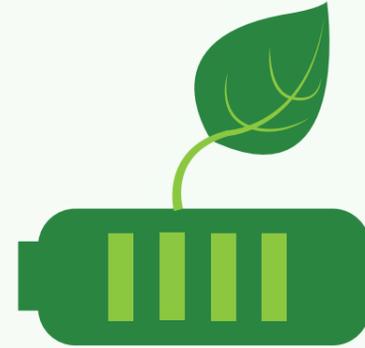
C-RAN architecture BBU integration	<b>5,931</b> integrations executed, saving approximately <b>320,000</b> kWh of energy, reducing carbon emission of <b>163</b> t-CO2e annually
Phase-out of 2G gateway switch	<b>9</b> projects executed, saving approximately <b>1,080,000</b> kWh of energy, reducing carbon emission of <b>550</b> t-CO2e annually
Sleep Mode for 4G service	Engaged for approximately <b>5.03</b> million cell-hours in total, on the basis of no impact to customer communications, saving approximately <b>290,000</b> kWh of energy, reducing carbon emission of <b>148</b> t-CO2e annually
Externalization of base station RRU with the use of natural ventilation or exhaust fans	<b>141</b> projects executed, saving approximately <b>840,000</b> kWh of energy, reducing carbon emission of <b>428</b> t-CO2e annually
Other measures like communication equipment, electricity, and air-conditioning equipment replacement, integration, and dynamic regulation	Approximately <b>44.09</b> million kWh of electricity saved with <b>22,441</b> t-CO2e of carbon reduced per year
SVG construction to phase out the conventional PSTN numbers	<b>2.9</b> million aged power-consuming PSTN equipment replaced, saving <b>13.2</b> million kWh of electricity and reducing carbon emissions by <b>6,719</b> t-CO2e per year

## 2G Green Energy

Chunghwa Telecom has been positively supporting the government policy and applying its extensive background knowledge in the construction of renewable energy. By the end of 2022, the Company had 55 solar power stations around Taiwan with a total capacity of 4,658 kWp, estimated to be able to generate approximately 5.964 million kWh and reduce 3,036 t-CO<sub>2e</sub> of emissions per year.

### Energy Savings for Data Centers

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



### Power Consumption Analysis

Unit: 10,000 kWh

Year	Total Electricity Consumption (A)	General Consumption (B)	Business Consumption – Meter Rate Lighting Service (C)	Business Consumption – Flat Rate Lighting Service (D)	Consumption of Meter Rate Lighting without Customer Number (E)	Consumption of Flat Rate Lighting without Customer Number (F)
2007	135,180	9,420	125,151	609	0	0
2020	150,910	7,469	121,999	5,883	15,559	0
2021	142,825	6,871	126,848	8,163	374	569
2022	136,525	4,440	123,280	8,029	537	239

- Notes:
1. B: office buildings and employee dormitories
  2. C: base stations, depot, and public telephone, which are not CHT-owned property
  3. D: base stations, depot, and public telephone, which are not CHT-owned property
  4. E: Consumption of Meter Rate Lighting without Customer Number
  5. F: Consumption of Flat Rate Lighting without Customer Number
  6. A=B+C+D+E+F; the general consumption comes from CHT office buildings; the business consumption includes the Flat Rate and Meter Rate Lighting.
  7. The Flat Rate is calculated based on the electricity fee. The electricity fee is converted into kWh based on the average electricity tariff per kWh, NT\$2.8458/kWh, from the "2022 Average Electricity Tariff per kWh submitted to the Electricity Tariff Review Committee" announced by Taipower.
  8. This table presents the power consumption with customer numbers and the fluctuated power consumption of equipment without customer number, which have been included in the GHG inventory data.

### Renewable Energy

Unit: 10,000 kWh

	2020	2021	2022
Total non-renewable energy consumption (A)	10.5	11.1	2,405.0
Total renewable energy consumption (B)	157,581	147,926	141,810
% of renewable energy consumption [A/(A+B)]	0.01 %	0.01 %	1.67 %

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

The Banqiao IDC of Chunghwa Telecom is the first world-class data center in Taiwan that is certified as TIA-942 Rated 3 and Rated 4. With the most rigorous standards and regulations ranging from architecture to electricity, machinery, telecommunication, and information security of IDC in place, and is a model of green IDC. In order to effectively reduce the risk of IDC maintenance and enhance customer trust, we have successfully obtained the Uptime Institute M&O certification, which is the first professional server room in Taiwan to obtain M&O certification.



### Taipei IDC

Energy conservation optimization measures: Replace aged electricity and air-conditioning equipment in phases, build cold and hot aisles separately in the IDC, as well as adopt high-efficiency UPS and magnetic bearing water chiller, aiming to achieve a PUE of 1.6 or lower.

### Taoyuan Low-PUE Demo IDC

The IDC was designed with the specification of a PUE of 1.5 or lower.

### Water Resource Management

The water use at Chunghwa Telecom is mainly for the purposes of domestic and cooling air conditioning. Aiming for an annual reduction of 1% (against the base year 2020), we executed water resources management for all sites via the "water bill management" feature on the EARTH system. The system offers features of inquiry, analysis, and anomaly information. Also, the water use can be reviewed regularly based on the data analysis report to raise the management efficiency. In addition, the centralized payment of water bills is available on the system to help reduce the printing of water bills, which comes with the dual benefits of cost-saving and carbon reduction. The reduction target for 2022 was achieved.

With the IoT technology, a "smart water meter monitoring platform" was established. The municipal water intake of buildings and the daily water use on each floor are comprehensively monitored remotely. Also, abnormal water use is managed in a real-time fashion to maximize the use of water resources. In addition, we actively promote various water conservation measures to improve the water use efficiency through the following actions, including:



- Install sink faucet sprayers to reduce waste



- Install dual flush toilets to reduce waste



- Use collected rainwater for watering office plants



- Encourage the installation of water reclamation equipment in new buildings, so that physically separated and treated sewage water can be reused for non-potable purposes after it has reached a certain quality standard



- Water resources recycling: Underground raft foundation rainwater reclamation system installed to collect clean rainwater from the rooftops and grounds of IDCs, along with installation of condensate water reclamation equipment to the air-conditioning system for offices, so as to reclaim rainwater, shower water, air-conditioning condensate water, etc. for tree watering and washing on campus



- Water resources management system: The smart water management system developed by our own to automatically send the information of smart water meters and flow devices of different monitoring stations back to the platform, enabling an effectively monitoring of the water use on offices and IDC buildings and assisting in formulation of the optimal short-, medium-, and long-term water management plans to achieve the goals of sustainable water conservation and carbon reduction

Unit: tonnes

	2020	2021	2022
Tap Water	679,629	598,435	566,165
AC Water	1,617,960	1,571,508	1,609,038
Reclaimed Water	2,777	1,534	7,453

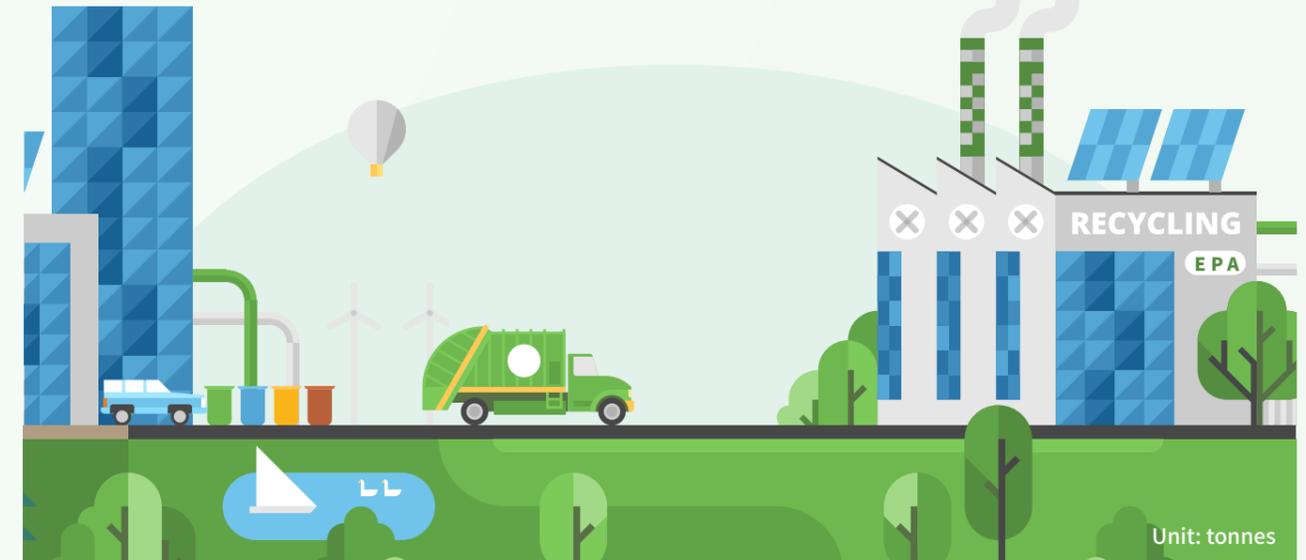
Notes: 1. The reason for the increase in air-conditioning water use in 2022: the increase in IDC business, with only a slight increase in the overall water use of 2.388% in comparison with the business growth, nevertheless.

2. The reason for the increase in reclaimed water on offices and IDCs: the business growth of IDCs and the increase in water reclaimed from the cooling water towers and air conditioners on IDCs.

### Waste Management

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

With the amount of waste in 2020 as the baseline, we aim for an annual reduction of 2% for the domestic waste, and 100% treatment by qualified service providers certified by the Environmental Protection Administration (EPA) for recycling, landfill, or incineration of the industrial waste. The reduction target for 2022 was achieved.



Item	2020	2021	2022
Total waste generated (general waste + industrial waste)	7,344.8563	8,869.9306	7,133.0176
Waste recycled/reused	3,846.6950	5,455.5190	5,220.0486
Waste landfilled	0	0	0
Waste incinerated with energy recovery	26.15	40.57	48.9
Incinerated without energy recovery	3,458.0913	3,328.9616	1,864.069
Waste otherwise disposed	13.92	44.88	0
Waste with unknown disposal method	0	0	0
Data Coverage (%)	100%	100%	100%

Notes: 1. The majority of the industrial waste of Chunghwa Telecom was waste wires and cables. Thanks to the reduced amount of declared waste for treatment in 2022, the total amount decreased as a result.

2. Other means of disposal: Batteries containing cadmium are TCLP waste that requires treatment in line with the EPA Taiwan regulations, which was to be treated overseas since there was no qualified service provider domestically. The waste was treated completed in 2021, so the data in 2022 is 0.

### Industrial Waste

Scrapped lead-acid batteries are recyclable industrial waste regulated by the EPA. With the objective of reducing pollutants and wastes, we adopt open bidding for recycling and demand the service providers to be legal service provider for treatment to ensure the compliance in the recycling process. A total of 17,692 lead-acid batteries with a total weight of 940,039 kg were scrapped and sold for NT\$14,840,153 in 2022. In fulfilling our responsibility for environmental protection, we also increased Company revenue. The public and private waste clearance and disposal companies recognized by environmental institutions are designated to handle the treatment of other industrial waste such as cement poles, fiber optic cables, woods, and batteries containing cadmium.

Category	Unit	Total amount		
		2020	2021	2022
Cement poles	tonnes	787	803	637
Fiber optic cables		237	600	316
Woods		26	41	49
Batteries containing cadmium		14	45	0
Disposal Fee	NT\$ thousand	9,555	20,642	7,788

Note: Batteries containing cadmium were treated completed in 2021.

### BS 8001 Circular Economy

In response to the UN SDG 12: Responsible consumption and production and the circular economy promotion in Taiwan's 5+2 Industrial Innovation Plan, we drive the transition to a circular economy. With BS 8001 Circular Economy guidelines introduced in 2021, we became the first telecom operator in Taiwan that obtained the BS 8001 Conformity Statement. We proposed five commitments with the 5R Principle higher than the statutory requirements at home and abroad:



#### Reduce:

Establish a green operation and consumption model to properly manage and reduce consumption of energy and resources, along with enhanced education and promotion for employees, suppliers, and customers.

#### Reuse:

Increase circularity and improve resource cycling technology for resource regeneration and recycling.

#### Repair:

Promote eco-friendly design and extension of service life of products and offer circular products that are more durable, easy to repair, and recyclable.

#### Refuse:

Promote green procurement, reject products with no green concept, and purchase products with green labels or with an equivalent efficiency thereof.

#### Recycle:

Facilitate an industrial chain symbiosis and develop forward-looking energy technologies to elevate energy/resource efficiency and promote recycling.



### 3G Green Stores

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

#### Green Revenue

In addition to developing products friendly to the environment, we have been promoting Green Stores and were the first telecom company in Taiwan to fully turn service centers into Green Stores. In 2022, green revenue was NT\$ 289.58 million, which was 14.17% of the commercial products revenue.

#### Paperless Receipt Service

The "paperless receipt service" is comprehensively promoted. In 2022, the percentage of paperless receipts exceeded 72%, reducing the consumption of 612 million sheets of paper, which is equivalent to reducing the felling of 55,600 trees, or reducing 11,000 metric tons of carbon emissions. Hence, it not only met customer needs, but also contributed to the mitigation of global warming.

	2020	2021	2022
Customer applying for e-bills (10 thousand sheets)	1,968	1,994	2,039
Ratio of customers applying for e-bills	71%	71%	72%
Quantity of paper saved (per 1,000 sheets)	590,400	598,200	611,603
Number of trees saved	53,673	54,382	55,600
Reduction of carbon emission volume (metric ton)	10,627	10,768	11,009

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

### The Sole Telecom Company in Taiwan with Carbon Label for Services

- In 2020, "CHT Syntrend Store" became the first telecom company in Taiwan with Carbon Label for services (Carbon Footprint Label No. 2014832001), certifying 400g of CO<sub>2</sub> generated per consumer served over the counter.
- "Paperless customer receipt and application (EMAIL)," "paperless QR-CODE number taking," "electronification for accounting services application," and "electronification for application in external distribution channels" promoted at the stores, saving 2.23 million sheets of paper and reducing carbon footprints in customer services.
- Replacement with "LED energy-saving lights" and "air conditioners in line with the energy-saving and environmental standards" in the stores in phases to reduce carbon emissions.

## 4G Green Supply Chain

Having been practicing various sustainable supply chain actions since 2008, Chunghwa Telecom leads the ICT industry for a sustainable, low-carbon transition. We accomplished three pioneering achievements:

- We were the first telecom company to propose the "Sustainable Supply Chain Initiative": Implementing a series of supply chain ESG action plans; connecting and mobilizing supplier partners to specifically respond to the UN SDGs.
- We were the first in the industry to join the "CDP Supply Chain Project": We invited nearly a hundred suppliers to participate in an international platform to submit carbon management information and improve their ability in managing carbon emissions with scientific and quantification mechanisms.
- We were the first telecom company that enforces "Sustainability Partner Rating System": assigning 4 tiers, Gold, Silver, Bronze, and Participatory, to the suppliers based on their sustainability actions via the "second party audit" system executed regularly each year, laying a solid foundation for the ESG development programs (e.g. education/training and supplier supportive actions) that follow.



## 5G Green Procurement

Uphold the philosophy of green procurement, we promote and give priority to the purchase of green products that are either environmental-certified (less polluting, recyclable, resource-saving or green building material) or self-declared to be of less environmental impact throughout the product lifecycle (from raw material to disposal). The Company also actively participates in green procurement programs and activities to inspire green purchases amongst others in the industry and the public.

We planned to achieve the target of green procurement amount accounting for more than 50% of the overall procurement in 2035. For that, in 2018, upholding the spirit of "ISO 20400 Sustainable Procurement – Guidance," we strengthened and practiced green procurement mechanism via the PDCA actions of the ISO system.

Unit: NT\$ million

	2020	2021	2022
Total green procurement	15,525	14,994	17,605
Accounted percentage of total procurement	18.55%	22.37%	28.67%

- Notes: 1. To achieve statistical consistency, the products with Gold rating in the Electronic Product Environmental Assessment Tool (EPEAT) have been included in the green procurement amount since 2020.  
2. For more information about Green Supply Chain and Green Procurement, please refer to p.130-135.



Carbon Footprint Label No. 2014832001  
per person served  
<http://www.epa.gov.tw>

## 2022 Environmental Performance



Environmental Information Disclosures

- Published ESG reports and disclosed environmental data to respond to the Dow Jones Sustainability Index (DJSI)
- Execution of an annual greenhouse gas inventory and acquisition of ISO 14064-1 verification and certifications
- Responded to the annual Carbon Disclosure Project (CDP) questionnaire
- Responded to related national rating questionnaires (including Common Wealth Magazine, Global Views Magazine, and Taiwan Corporate Sustainability Award)
- Signed on as a supporter of the Task Force on Climate-related Financial Disclosures (TCFD) initiative and disclosed relevant information in line with the TCFD Framework



Improve Energy Use Efficiency

- Merged and exploited data center spaces
- Adoption of efficient, energy-saving equipment to improve the PUE performance of IDCs
- PUE values of IDCs reduced year by year from **1.67** in the base year of 2020 with an aim for **1.50** by 2030
- Green building materials adopted for newly-established IDCs or hostels
- Set up rainwater, underground, and condensed cooling water recycling systems for the reuse of water resources
- Replaced lamps in the public areas and internal office buildings with environmentally friendly LED bulbs



Implement Green Energy

- Constructed **4,658.8** kWp of photovoltaic systems by the end of 2022
- Acquired **24,029** Taiwan Renewable Energy Certificate



Autonomous Environmental Protection

- Replaced old vehicles with environmentally friendly ones, and used electric vehicles in trials
- Sponsored the construction of the YouBike station at the corner of Xinyi Road and Hangzhou South Road
- Promoted clean homes, energy-saving offices, car-free days, and paperless Office Document Automation System (ODAS)
- The Taiwan Energy Conservation Patrol: focus on increasing energy efficiency within small and medium enterprises and vulnerable social institutions
- Set waste reduction and recycling targets



Value-Added Products and Services

- One and only in the industry of Taiwan: Syntrend store acquired the EPA's Carbon Label for Services
- Promoted e-bill with a marketing section, featuring eco-friendliness, energy-saving, and emission reduction
- Electronic invoicing: invoice data were prepared for permanent cloud storage to save material, human resources, and receive preferential tax treatment as an incentive and exemption from fines by the government
- iEN smart energy-saving services and promotion of energy-saving products
- Cellphone recycling bins installed at the Service Centers: **10,536** metric tons of cellphones recycled with a reuse rate of **90.19%** in 2022
- Green Stores: transform **447** service centers nationwide into Green Stores
- Collaboration with the Sustainable Alliance for Low-carbon Economy (SALCE) to issue the Sustainable Partnership (products, services, and organizations) Certificate

## Sustainable Supply Chain

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



2017

First telecom operator in Taiwan to join "CDP Supply Chain Program"

2018

First ICT company upholding the spirit of ISO 20400 Sustainable Procurement – Guidance

2019

"Sustainability Partner Rating System" launched

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

## CHT's Sustainable Supply Chain Initiative – Sustainable Partner Certification

Chunghwa Telecom upholds its company motto and its mission as a Digital Economy Motivator and a Creative Industry Pilot, with the "Sustainability Partner Rating System" launched in 2019, there have been 45 sustainable suppliers certified with Gold-tier Certificates cumulatively.

On the basis of category and significance of suppliers, and pursuant to the results of second party audit by SGS, the "Sustainability Partner Rating System" classifies the suppliers into 4 tiers, Gold, Silver, Bronze, and Participatory, while those who fail to be certified are mentored with the mechanism of improvement within a specified timeframe.

Rated suppliers shall receive a mark that corresponds to their rating, and an excellent mark will be seen as a favorable term when submitting a tender. We hope to compile a "Chunghwa Telecom Sustainable Supply Chain" list through evaluation, training, audit and certification; we'd also like to lead our suppliers toward a sustainable future, improve the sustainability of telecom companies, business, and society as a whole, as well as keep abreast with the international trends of low-carbon economy.



## Supply Chain ESG Management Strategy

Strategy	Management Target	2022 Results
Integrate ESG Principles to Chunghwa telecom supplier assessment	Complete 100% of "tier 1 suppliers" ESG current status assessment	100% of suppliers completed the ESG survey questionnaire
Ensure ESG conduct of the suppliers complies with "Chunghwa Telecom Company, Ltd. Supplier Code of Conduct"	Complete 100% of "significant tier 1 suppliers" ESG on-site visits and audits in 2025	ESG on-site visits and audit rate reached 81%
Continue communication activities to promote supplier climate change adaptation measures and emissions data management	<ul style="list-style-type: none"> <li>Complete 100% of "critical tier 1 suppliers" carbon management knowledge education in 2022</li> <li>Collect information on climate change and carbon emission from suppliers at least once a year.</li> <li>Suppliers who respond to Chunghwa Telecom's CDP Supply Chain Project questionnaire reaches 70%</li> </ul>	<ul style="list-style-type: none"> <li>100% completion of carbon management knowledge education and trainings for the "significant tier 1 suppliers"</li> <li>The suppliers' response rate to the questionnaire was 56%</li> </ul>

The Chunghwa Telecom suppliers fall into three categories: construction work, property and service. Apart from professional network communication equipment to be procured internationally and that the amount of which was higher for the 5G deployment in 2021, we procured locally as much as possible to facilitate the local economic development. The domestic procurement percentage was 97% in 2022, increased by 8% compared to the previous year.

## Suppliers Analysis

Item	Number of Suppliers	Accounted Percentage of Turnover
Tier 1 Suppliers	1,915	99%
Critical tier 1 suppliers	192	82%
Critical non-tier 1 suppliers	23	-

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

## ESG Capacity Promotion of Suppliers

In 2022, aside from the existing Annual ESG Supplier Conference and environmental education visits, we organized ESG education and training for suppliers, which were held online instead due to the concern of COVID-19, inviting 50 suppliers. Apart from the ESG lecturers internally, we also invited professional ESG consultants to offer a 4-hour ESG program. With the education and training, we expected to communicate to the suppliers our commitment to the sustainable supply chain management and Sustainable Partner Certification system, so as to collectively bridge the supply chains of telecom industry to the international trend of sustainability, which also come with the benefits in the ESG area.

## ESG On-site Audits

To promote awareness of ESG management in supply chain partners, SGS-Taiwan has been granted to tier 1 supplier on-site audits since 2010 in accordance with "Chunghwa Telecom Company, Ltd. Supplier Code of Conduct." The number of suppliers to be audited was raised to 40 suppliers per year starting from 2022. We commit ourselves to 100% completion of ESG second-party audit for our key tier 1 suppliers by 2025. To make sure all our supply chain partners will be in compliance with ESG management requirements, our goal is to complete the sustainability rating of 140 suppliers and issue the certification mark by 2027.

CHT Management Indicator	Method	Ratio
Ratio of Tier-1 Supplier ESG Audited per Year	<ul style="list-style-type: none"> <li>Supplier ESG Desk Assessment</li> <li>Occupational health and safety on-site audits / engineering and cable audits</li> <li>Second-party audit by the SGS-Taiwan</li> <li>Significant non-tier 1 suppliers audits</li> </ul>	100%

**Overview of the Supply Chain ESG Management Results**

Item	Description	2022	2021 Outcome	2022 Goal
Completion of Online Supplier ESG Survey	Suppliers with a procurement amount of NT\$5 million or above is liable to fill out the Supplier ESG Survey that covers items of corporate ethics, labor rights, environmental management, and occupational safety and health.	95%	80%	95%
Procurement staff that received ESG-related training	It is to ensure all CHT procurement staff understand and execute faithfully the "Chunghwa Telecom Company, Ltd. Supplier Code of Conduct."	100%	100%	100%
Supplier contracts containing ESG-related terms	Suppliers are explicitly required to abide by the "Chunghwa Telecom Company, Ltd. Supplier Code of Conduct" in their procurement contracts.	100%	100%	100%
"ESG self-assessment form for suppliers" included in the documentation necessary in the tendering process	Tendering documentation stipulates that all bidders to fill out ESG self-assessment form for suppliers; additional elaboration on improvement is required in the event of breach of laws or regulations by suppliers.	100%	100%	100%
Suppliers without violations against laws*	The ESG Management implementation status is captured via online questionnaires. Note: In reviewing the ESG questionnaires responded by the suppliers, the responsible unit would also inquire if there had been any economic, environmental, or social violation, while a persistent failure in improvement of any incident, which resulted in fines totaled NT\$1 million or above, was deemed as a violation.	100%	96%	100%
Supplier ESG second-party audit	Through second-party audit, key suppliers are ensured free from environmental and human right risks such as forced labor.	100%	100%	100%
Audits on civil engineering/ cable contractors	A total of 133 audits were carried out on 78 contractors. As of the end of 2022, 36 suppliers were found with incidents of violation and the fines amounted to NT\$631 thousand.			
On-site safety and health inspections	The occupational safety and health personnel at the branches under the Consumer Business Group and the Network Technology Group conduct at least three on-site safety and health inspections per week. Upon discovery of non-conformities, relevant departments will be notified for corrective action tracking. A total of 8,393 inspections were conducted on 577 contractors in 2022.			


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

After The Paris Agreement took effect, we entered an age of low-carbon economy. Chunghwa Telecom is a carrier in the information and communications industry, and this is a crucial issue of great urgency. We need to understand and respond to the impact of climate change and plan appropriate response strategies and actions at once.

In 2017, CHT first joined the "Carbon Disclosure Project (CDP) Supply Chain Project." We are promoting an understanding of climate change among our suppliers and will make every effort to increase their efficiency in carbon management. CHT is going to put an encouragement mechanism in place that will help suppliers with the research and development of products and services that have less impact on climate and environment. Our three goals for the supply chain carbon management are:

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

**Abstract of the Results of Chunghwa Telecom's 2022 "CDP Supply Chain Project"**

- 56% of suppliers responded to Chunghwa Telecom's questionnaire
- 54% of suppliers have taken energy-saving and carbon reduction measures
- 56% of suppliers have set emission reduction goals
- Chunghwa Telecom's supply chain reduced carbon emissions around 9,580 thousand t-CO<sub>2</sub>e
- 74% of supplies incorporated climate change into long-term business strategic planning on average
- 72% of suppliers have established procedures for evaluating climate-related risks

**The Achievements of CHT's 2022 Supplier Energy Conservation Project**

Types of Projects	The amount of Carbon Emission Reduced (t-CO <sub>2</sub> e)	Estimated Amount of Money Saved Each Year (NT\$ 100 Million)
Changes in Corporate Policies and Behaviors	3,117	15,494,698
Energy Efficiency in Buildings	41,072	283,566,590
Energy Efficiency in Manufacturing Processes	6,477,803	26,473,392,029
Low-carbon Energy Consumption	2,654,682	2,597,218,897
Self-produced Low-carbon Energy	23,998	198,372,815
Waste Reduction and Material Recycling	171	-
Others	380,359	394,727,770
<b>Total</b>	<b>9,581,202</b>	<b>29,962,772,799</b>

Notes: 1. Source of data: CDP

2. The amount of money saved each year was provided to CDP in terms of USD, which is converted at the exchange rate of 30.29.

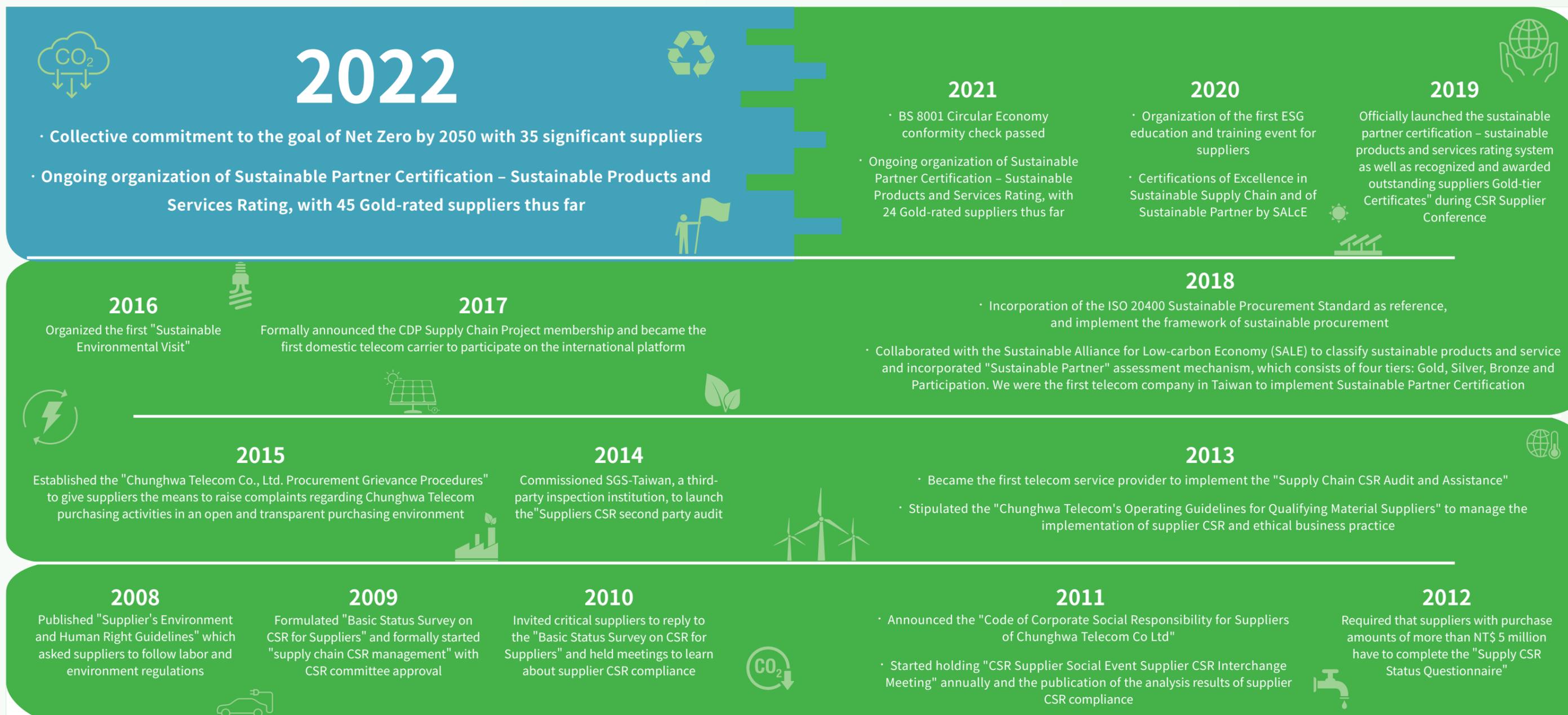
### Improvement of Suppliers' Sustainable Actions

"Chunghwa Telecom Company, Ltd. Supplier Code of Conduct" clearly outlines the Company's expectations in terms of "business, ethics, labor, environment safety and health." The guidelines apply to all suppliers that provide products or services to Chunghwa Telecom or its subsidiaries or joint ventures, and extend to other participants of the supply chain to which the supplier is directly or indirectly related. We hope that suppliers will commit to our values and take more proactive steps towards maintaining a sustainable business ecosphere.

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

Type	Description
Rewards top-performing suppliers	To reward top-performing suppliers, Chunghwa Telecom offers qualified suppliers the privilege of tender bond waiver when submitting tenders, as well as a reduction of the performance bond to 5% of the value of the contract won. This was an attempt to exert influence as an industry leader and bring more attention to corporate social sustainability.
Training of professional skills	Our Telecom Training Institute has been providing suppliers with relevant training and certification courses to satisfy their requirements. Some of the popular courses include: cabling contractor certification, telecom line construction quality assurance certification, and fiber optic contractor training. In 2022, the institute organized 21 classes and trained 414 workers; 235 of whom had obtained certification.

\*Video: [🔗](#)



# The Social Value Guide



The SDGs CHT contributes to in this section



## Chunghwa Telecom "5I SDGs" Initiative

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

## SMARTI

### Strategy

Minimize the digital divide and create digital opportunities

### Target

#### Short-term:

- Ongoing commitment to the universal telecom service
- Situation assessment to adjust offices of "Good Digital Neighbors" as appropriate
- "Winning Matches, Planting Trees" three-year afforestation project

### Management

- The LBG assessment of investment in the community
- Social Return on Investment (SROI) calculation

#### Mid- and Long-term:

- Social investment will reach 0.5% of revenues by 2025
- Afforestation & tree-planting adoption across Taiwan: 150,000 trees in 8 years
- Support in hotspot deployment for huge national festivities, sports events, or other events
- The Chunghwa Telecom Foundation funds NT\$30 million every year to support Good Digital Neighbors in project promotion

### Action

- 5I SDGs digital inclusion initiative
- Telecom universal service
- Digital Good Neighbors
- "Read with You"

### Response

- Corporate volunteer action
- "5G Plastic Free Day" campaign

### Indicator

- GRI** Social investment: NT\$839,678 thousand
- GRI** Telecom subsidy for underprivileged groups: NT\$156,268 thousand
- CHT** Digital Good Neighbors: 89 locations
- CHT** SROI of "Read with You": NT\$7.97

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

## I Technology

### 5I SDGs Action Results in 2022

- 52 sessions of Smart Academy were opened, benefiting 830 participants.
- 75 little directors were cultivated by GDN Little Directors e-course.

#### Corporate Volunteer

Technology Education Team

#### Core Competence

Utilize digital technology to promote digital equality

#### Action Plan

- Smart Academy
- GDN Little Directors

#### 2030 Goals

- Cultivate **2,000** technology education volunteers
- Technology education services for over **5** million

10 REDUCED INEQUALITIES



UN SDGs

## I Helping

### 5I SDGs Action Results in 2022

- 40 visually-impaired individuals were benefited.

#### Corporate Volunteer

Visually-impaired Service Team

#### Core Competence

Assist the visually-impaired in bridging to digital technology and services

#### Action Plan

- Beacon case
- Blind aid courses

#### 2030 Goals

- Benefits over **600,000** visually impaired people in Taiwan
- Helping in lives and entertainment of over **200** thousand visually impaired

11 SUSTAINABLE CITIES AND COMMUNITIES



UN SDGs

## I Protecting

### 5I SDGs Action Results in 2022

- A total of 11,051 volunteers participated in the corporate volunteer training, Plastic Free Festival, and the nationwide beach/mountain cleanup activities, and cleared 21.9 metric tons of waste.

#### Corporate Volunteer

Green Service Team

#### Core Competence

Save energy and reduce carbon emission to treasure Earth with green actions

#### Action Plan

- Eliminating marine debris
- 5G Plastic Free Corporate Volunteer Sustainable Actions

#### 2030 Goals

- Help reduce energy and carbon emissions of communities over **1** million t-CO<sub>2</sub>e
- Promote plastic free environmental education

13 CLIMATE ACTION



UN SDGs

## I Learning

### 5I SDGs Action Results in 2022

- Little Learning Buddies: 233 people
- Big Learning Buddies: 378 people
- Totur hours: over 5,289 hrs

#### Corporate Volunteer

Love in Learning Team

#### Core Competence

Bridging the rural-urban gap and flip education in rural areas

#### Action Plan

- Read with You
- Digital Empowerment Incubation Program for the Children and Adolescent Care in Lanyu
- CoLab Project

#### 2030 Goals

Read with You:

- Cultivate Big Learning Buddies: **5,610** people
- Benefited Little Learning Buddies: **3,622** people
- Internet learning hours: **107,467** hours

4 QUALITY EDUCATION



UN SDGs

## I Sharing

### 5I SDGs Action Results in 2022

- Corporate Volunteer Training: 251 people

#### Corporate Volunteer

Community Service Team

#### Core Competence

Promote local services as a friendly significant neighbor

#### Action Plan

Taiwan telecom digital collection guided tour

#### 2030 Goals

- Over **50,000** Corporate Volunteer Services
- Over **3** million communities stakeholders being helped

9 INDUSTRY INNOVATION AND INFRASTRUCTURE



UN SDGs



## 51 SDGs Action Results in 2022



### I Helping

#### "I Helping" for the visually-impaired to see the beauty of museum: National Palace Museum

The corporate volunteers led more than 40 visually-impaired individuals from the northern Taiwan to visit the National Palace Museum (NPM). The exclusive app "Integrated Solution of In-depth Museum Tour for the Visually Impaired" developed in cooperation with Tamkang University was put into good use, enabling the visually impaired to "see" the wonderful beauty of the NPM beyond vision, so as to elevate the technological experience and cultural equality.



### I Sharing

#### Corporate Volunteer Training

The ideas of environmental education were promoted through the "5G Plastic Free Corporate Volunteer Training" to the 128 participants in Taichung and 123 participants in Kaohsiung, totaled 251 participants, with 6 hours per person, totaled 1,506 hours.

#### Promotion of Telecom Technology Education via The Guided Tour by Corporate Volunteers at The NSTM:

Together with the National Science and Technology Museum (NSTM), we presented the permanent exhibition "Telecom@Taiwan," displaying more than 900 telecom relics. Also, the stories were presented in the form of multimedia videos, combined with interactive games and guided tours by the telecom corporate volunteers, offering visitors an in-depth understanding of the meaning and contents of telecommunications technology.



### I Protecting

#### 5G Plastic Free Corporate Volunteer Sustainability Action Tetralogy

**Online activities:** Plastic Free 88 for a Lovely Life, 5G Plastic Free NFT Offering, 5G Plastic Free NFT official website, and 5G Plastic Free official website, etc., reaching up to 1,899,937 people.

**Offline activities:** Corporate volunteer training, Plastic Free Festival, the nationwide beach/mountain clean-up activities with 21.9 metric tons of waste removed by 11,051 participants.



### I Learning

#### FJU "Read with You" Community Network Tutoring Program

In 2022, we successfully connect 233 school children with 378 university students, with 5,289 online learning hours.

#### Colab Project

In partnership with the Chengzhi Education Foundation, we provided quality networks for schools in KIST. Starting with the 495 students and teachers from 4 junior high schools at Pinglin of New Taipei City, Emei of Hsinchu, Zhanghu of Yunlin, and Sanmin of Hualien, through the mechanism of co-planning and co-delivery, we created learning environments of better quality for the students in the rural areas.

#### Digital Empowerment Incubation Program for the Children and Adolescent Care in Lanyu

In partnership with Microsoft Taiwan and World Vision Taiwan, two e-learning centers were established in Lanyu to provide digital empowerment programs for the local teenagers and residents. With over 1,500 beneficiaries, the program elevated the digital competence and bridge the digital divide for the residents in Lanyu, where resources were relatively limited.



### I Technology

#### Smart Academy

CHT encouraged the elderly and local citizens to partake in social activities, 52 sessions were opened in the rural areas in Taipei, Taoyuan, Miaoli, Taichung, Changhua, Kaohsiung, and Taitung, such as Ankeng, Sanzhi, and Pitou, promoting e-learning activities jointly by the corporate volunteers and local citizens combined.

**51 SDGs Corporate Volunteering Hours in 2022**

Category	Hours
NSTM – volunteering in ordinary days	1,179
Smart Academy	75
Taipei Marathon	280
5G Plastic Free Family Day	792
CHT Nationwide Beach Cleanup Activity	11,200
"I Helping" for the visually-impaired to see the beauty of museum: National Palace Museum	329
<b>Total</b>	<b>13,855</b>



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

Chunghwa Telecom constantly evolves in "National CIP Designated Exercise for Critical Infrastructure" for 8 years in a row. CHT was awarded the collective honor of "Outstanding Entity". President Kuo recognized by the assessors for his response and command, was presented with the honor of "Best Commander". Chunghwa Telecom demonstrated the resiliency in disaster prevention and capacity for disaster response to the fullest, completing the response exercise that was the largest in the types of disaster covered, the broadest in the units connected, and the most massive in the manpower mobilized over the years.

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

## I Technology + I Sharing: Zero Gap for Love – A Telecom Technology Tour for Students from Rural Areas

Over a hundred students and teachers from six schools in Kaohsiung City, including Shang-Ping Elementary School in Shanlin District, Muh-Jah Elementary School in Neimen District, Ximen Elementary School in Neimen District, Gushan Elementary School in Dashu District, Fu-An Elementary School in Meinong District, and Long-Shan Elementary School in Meinong District, paid a visit to the "Telecom@Taiwan" exhibition and experienced the "5G Mobile Guided Tour" and various fun technologies, so that students and teachers could better appreciate the telecom history in Taiwan via the immersive experience powered by 5G technology. As a result, what it bridged was not only the gap between urban and rural areas, but also the gap for love.



## I Protecting + I Sharing – 5G Plastic Free at Speed; 5G Plastic Free for Carefree

Tapping into its core technologies, resources, and competences, Chunghwa Telecom took the lead in the telecom industry, proposing the "5G Plastic Free Day Initiative." It promoted the "Beach Cleanup and Sand Fixation" corporate volunteer action across the country. Through the sustainability education in the manner of education in entertainment, combined with innovative 5G technological applications, the Company called on all people in Taiwan to jointly march on the path to a sustainable mobile life that is "5G plastic free for carefree."

### 5G Plastic Free Corporate Volunteer Sustainability Action Tetralogy

Chapter 1: Plastic Free 88 for a Lovely Life, and 5G Plastic Free

Chapter 3: Plastic Free Festival

Chapter 2: Corporate Volunteer Sustainable Action Training

Chapter 4: Concerted National Beach Cleanup



### Contributions

- Online activities: 3 Meals per day, Plastic Challenge, 5G Plastic Free NFT offering, and Plastic Free 88 for a Lovely Life, with 5.28 million people reached
- Offline activities: 3 Plastic Free Festivals organized in 2 years with 8,210 participants; 2 volunteer trainings with 295 volunteers in the seed volunteer training
- 5,000 people in the nationwide beach cleanup effort to clean up 42.3 metric tons of wastes
- Future prospect: Scale-up for the 5G Plastic Free campaign from domestic to overseas, projected to reach over 10 million people online and 20,000 participants offline

# SUSTAINABLE DEVELOPMENT GOALS

## No Poverty

1 NO POVERTY



- To bridge the gap of communication and information quality between the rural and urban areas, we go into the mountains and offshore islands to construct 4G cell sites.
- In response to the objectives of Digital Nation & Innovative Economy Development Program and Forward-looking Infrastructure Development Program - Digital Infrastructure, actions are taken as the testimony to CHT's capacity in social inclusiveness.
- Over NT\$400 million is allocated to construction and maintenance of universal telecommunication service to realize 4G in every town and village and 100% coverage in towns and villages.
- With actions to ensure that all, the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services.

## Zero Hunger

2 ZERO HUNGER



- CHT develops AI agricultural analysis model. The data is uploaded to a smart agriculture cloud platform via NB-IoT technology, with which farmers can arrange their farming schedule accordingly.
- Through NB-IoT technology, technology is introduced to agriculture. Risks of agricultural disaster are reduced via forecast of the future tendency of data changes, which facilitate the improvement of yield and quality of produce and achieve the goal of a smart quality agriculture.

## Health and Well-being

3 GOOD HEALTH AND WELL-BEING



- The first telecom service provider that introduced OHSAS 18001 and TOSHMS as well as obtained certification of ISO 45001 – Occupational Health and Safety and safety management systems.
- Regular annual employee health checkups, hiring professional doctors and health managers to provide health advice, and building a full range of employee care measures.
- The Mobile management tool eSafe Wizard app for occupational safety and health, introduces cloud, paperless, real time, and effectiveness into the safety and health management.

## Quality Education

4 QUALITY EDUCATION



- Read with You Network tutoring program has been promoted joint forces with Fu Jen Catholic University since 2009, assisting disadvantaged students in primary and middle school students in the rural areas in their schoolwork, which facilitate school children in the rural areas in overcoming rural-urban gap and flipping their lives.
- CHT Digital Good Neighbor program sets up digital centers in 89 towns and villages across the country to promote digital applications.
- CHT's ICT expertise is leveraged to assist local organizations in rural areas or in need to establish a stable network environment and ensure the rights to digital technology in local community.

## Gender Equality

5 GENDER EQUALITY



- We value right to work and gender equality; the pay to female employees, management level or not, is equal to that of a male employee.
- Directions for Chunghwa Telecom Sexual Harassment Prevention and Grievance Management has been stipulated to put the Act of Gender Equality in Employment into practice.
- Appeal Review Committee has been established to handle appeals concerning discrimination against employees and other inappropriate conducts. There are 5 members on the committee, including 3 female members, which is over a half of the seats.

## Clean Water and Sanitation

6 CLEAN WATER AND SANITATION



- The water resource management nationwide is included in the EARTH system of CHT's own device to analyze and control the consumption of water resource via big data.

## Affordable and Clean Energy

7 AFFORDABLE AND CLEAN ENERGY



- Renewable energy has been actively developed to bridge ourselves to green energy. As of the end of 2022, CHT has installed solar PV systems throughout Taiwan with a total capacity of 4,658.8kWp.
- With the commitment in the green energy industry, we assisted with the two construction projects of solar power plants for a subsidiary of Taiwan Cement and Taipower respectively, in which the solar power plant commissioned by the subsidiary of Taiwan Cement was the largest solar power plant construction project commissioned by the private sector.
- Working with Vitec Energy Taiwan Co., Ltd., we completed two solar power plants in Yilan County. With an installed capacity of 3,000 kW in total, it is estimated to generate energy up to 3 million kWh per year, reducing approximately 1,600 metric tons of CO<sub>2e</sub> annually.

## Decent Work and Economic Growth

8 DECENT WORK AND ECONOMIC GROWTH



- The only telecom company with a labor union established and a collective bargaining agreement with it. A labor director is appointed to sit on the Board of Directors to voice the needs of employees to the top level.
- Complete education, reasonable remuneration, and a dignified environment allow our employees to commit themselves at work and reduce turnover rate.
- EYE Social Innovative Call Center was established, training the visually impaired individuals into call center personnel and offering work opportunities.

## Industry, Innovation and Infrastructure

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



- We continue to construct the Fiber to the Home (FTTH) networks, with a coverage of 91.52% achieved in 2022, and 51.11% achieved for the 2Gbps ultra-fast broadband network coverage, in line with the policy.
- Upholding the spirit of digital equality, we are actively deploying mobile network in rural areas and improving network infrastructure and communication coverage in the rural areas, which is above 99.95%.

## Reduced Inequalities



- We proactively protect human rights issue, stipulating our Human Right Policy with the scope of application extended to the value chain to specifically prohibit any form of discrimination.
- We assure the transparency in global roaming charges and competition, support of Telecoms in developing nations, telecom services for persons with disabilities and the freedom of speech over telecom networks.

## Sustainable City and Communities



- Using IoT, 5G, big data analysis, and AI, we assist Taiwan in constructing smart sustainable cities via smart solutions.
- Utilization of Intelligent Operation Center (IOC).
- Local governments can integrate individual systems of different departments, collect and analyze municipal information, and construct sustainable, safe, health cities with the IOC platform.

## Responsible Consumption and Production



- The first edition of CSR/ESG report was released in 2007 and has been disclosing the non-financial information of the corporation for 16 years consecutively.
- A green procurement strategy is fully implemented with over NT\$17,605 million of green procurement amount and accounting for 28.67% in the total procurement amount in 2022.
- We took the initiative of supplier CSR management actions in 2008, which made us the first telecom company that promotes ESG management for supply chain in Taiwan.
- From Principles to Assessment, questionnaire survey, annual ESG Supplier Conference, sustainability education, and on-site audits of suppliers in cooperation with the SGS, we improve the sustainability capacity of our supplier partners step by step.
- Apart from introduction to ISO 20400 sustainable procurement guidance, sustainable rating label was implemented, maximizing the influence of procurement to create new green business opportunities.

## Climate Action



- The dedicated Environmental Sustainability Task Force has been established under the Sustainable Development Committee, tasked with stipulation of environmental sustainable development goals and incorporation of issues of carbon management in the operation plan.
- In 2008, we introduced ISO 14064-1 greenhouse gases management system to inventory the carbon emissions and obtain the SGS certification each year.
- Connect to the supply chains to promote sustainable, low-carbon supply chain practices and develop green products and services.
- Since 2016, approximately 50 supplier partners are led to environmental education venue to engage carbon management training to elevate their environmental protection awareness every year.
- We joined the CDP in 2018, and we are the first telecom company in Taiwan that signed and responded to the initiative of Task Force on Climate-Related Financial Disclosures (TCFD). Since 2020, CHT is the first telecommunication carrier that has been certified to the highest grade of TCFD Conformity Check for 3 consecutive years.
- The "CHT Energy Efficiency Environmental Service" was established. We help enterprises to obtain professional knowledge and the right ways to save energy, free of charge, with our professional skills.

## Life below Water



- We leveraged the emerging 5G technology, and worked with the unmanned vessel, Marine Vacuum Cleaner, developed by Azure Alliance to clean the plastic debris in the ocean.

## Life on Land



- We worked with Dr. Jane Goodall in 2006 and formed an alliance to participate and care for environmental education and conservation issues and sponsored the Jane Goodall Institute in planning, producing, and publishing the "Roots & Shoots Environmental Education Newsletter for Children."
- "Sustainable Environmental Education" initiative, firstly created in 2016, we take 50 supplier partners to the environmental education venue in 2022.

## Peace, Justice and Strong Institutions



- We have stipulated Ethical Corporate Management Best Practice Principles, Code of Ethics, and Procedures for Ethical Management and Guidelines for Conduct to lay out the required ethics and responsibilities.
- Guidelines for Personnel Evaluation and Standards Governing the Administrative Rewards and Discipline of Chunghwa Telecom Personnel have been stipulated for personnel evaluation; rewards and disciplines are to be given in a timely manner.
- Safe and rigorous whistleblowing mechanism is established; the employee grievance hotline is made available in the Employee Section on the EIP.
- Certification of Conformity to Code of Conduct by an external third party is conducted annually since 2020.

## Partnership for the Goals



- We connect organizations, global and local, with the corporate resources and core competences to serve specific stakeholders, stakeholders in the rural areas, and disadvantaged stakeholders, so as to create a digitally inclusive society.
- Since 1988, we have been working with the Center of Resources for Visual Impairment of Tamkang University and dedicating ourselves to aiding the visually-impaired with telecom technologies and development of a voice-based assistance app for the convenience of their lives.
- Since 2009, we have been promoting Read with You network tutoring for over a decade joint force with Fu Jen Catholic University, replacing roads with networks to offer schoolchildren in rural areas a hand on their schoolwork.
- Since 2015, working with the NTU Hackathon and establishing the network environment in the venue for the participants to retrieve data to produce innovative solutions.
- To help the community industries in economic autonomy, the Foundation has been working with the partners of Good Digital Neighbors to conduct an integrated marketing and promotion of their hometown produces and giftboxes; combined with the purchasing power of our colleagues, we supported the community-based industries and spread their ideas of sustainability.

## 360 Degree of Digital Inclusion Actions

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

### Chunghwa Telecom Digital Inclusion Strategy and Results

Minimize the Digital Divide	
	<p><b>Chunghwa Telecom Foundation Digital Good Neighbors</b></p> <p>The Digital Good Neighbors were located in 89 places</p>
	<p><b>The annual investment of Telecom universal service is approximately 5.1 hundred million</b></p> <ul style="list-style-type: none"> <li>Telephone services for more than 260,000 householdes in 87 "remote areas" and 9 "areas considered as remote areas"</li> <li>Data communication service for more than 140,000 households</li> <li>Data connection service for more than 600 high schools, primary schools, and public libraries</li> <li>Approximately 30,000 public telephones installed across 22 counties/cities</li> </ul>
	<p><b>Preferential subsidies for the disadvantaged groups</b></p> <ul style="list-style-type: none"> <li>Care for 84,221 households of the disadvantaged groups, with subsidies amounting to NT\$156,268 thousand</li> </ul>
	<p><b>Preferential subsidies Equipment supports for major events</b></p> <ul style="list-style-type: none"> <li>Broadband circuit, MOD platform promotion, mobile base station vehicles, SMS, Wi-Fi AP, temporary data circuit</li> <li>The coverage rate of the 12Mbps popularization broadband service is over 91.59%</li> </ul>
Create Digital Opportunities	
	<p><b>Chunghwa Telecom Foundation Click Taiwan</b></p> <p>The 13<sup>th</sup> "Click Taiwan" Program promoted the service programs in a remote manner in response to the pandemic (including community management, online teaching for the elderly, community video production, collaborative production of community chronicles by students and communities, etc.) Meanwhile, the in-person flash mob visits to local communities were organized to bridge the divide between the urban and rural areas via the online-merge-offline (OMO) model, as young volunteers drove common good in both urban and rural areas.</p>
	<p><b>The CHT Digital Innovative Application Series</b></p> <p>The CHT Digital Innovative Application Series has been running for 15 years to promote digital development in Taiwan.</p>
	<p><b>PC education Network tutoring</b></p> <p>iPhone usage training courses for the visually impaired were regularly held in support of the visually impaired assistance plan.</p>
	<p><b>Assistance application development / Employment</b></p> <ul style="list-style-type: none"> <li>App for the Visually Impaired has been viewed over 3.35 million times since 2013.</li> <li>We established the EYE Social Innovative Call Center where the visually impaired can become paid service personnel and earn their own living.</li> </ul>

### Social Investment Management

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

### Social Investment Statistics for 2022

Unit: NT\$ thousand

Cash Donations	211,261
Product or Service Donations	92,073
Universal Telecom Services	510,758
Management Expenditures	22,266
Corporate Volunteer Services	3,320
<b>Total</b>	<b>839,678</b>



Hours of Corporate Volunteer Services  
48,797 hours



Percentage of Revenue  
0.039%

### Minimizing the Digital Divide

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

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

Chunghwa Telecom and Chunghwa Telecom Foundation have joined hands cultivating communities for 17 years, establishing digital good neighbors across Taiwan to bridge the rural-urban gaps in resources, serve as the platform to connect resources, offer resources such as community digital learning, youth volunteering, sports/ cultural/art activities, and local industries promotion, as well as discover moving stories and local industries unique to local communities. Today, the partnering bases have been set up across all corners of Taiwan Island and offshore islands, covering ethnic groups of Minnan, Hakka, indigenous peoples, and the new immigrants. With the unity and connection of good neighbors, we expect a variety of residents different in ethnicity and ages can all gain opportunities and energy from them while bridging the gap between cities and towns/villages in resources.

### Promotion of Basketball Sport and Sportsmanship | Chunghwa Telecom Women's Basketball Team Gives Back to Communities

Established in 1974, Chunghwa Telecom Women's Basketball Team (CHT WBT) has been involved in "Love & Care Charity Tournament Series" for 11 consecutive years since 2011, hoping to convey the refreshing, healthy image of CHT WBT and the ESG philosophy of Chunghwa Telecom via the Series. "3-on-3 Basketball Charity Cup" and "CHT WBT Homecoming" were organized in Penghu and Tainan in 2022. Through the experience sharing of the star players on CHT WBT, we continued to pass on the energy of positivity, encouraging children to bravely pursue their dreams on the path of basketball.



### Transformation of Placemaking and Community Industries 2022 Click Taiwan Innovation Design Action

CHT Foundation saw the manpower and resource shortage locally and that the local industries were limited in terms of development. In 2020, we promote the project of "Click Taiwan Innovative Design Action." The foundation built the local support networks, connected teams of college students and teachers with design backgrounds and interdisciplinary experts in the industries, and assisted in the optimization and upgrade of local industries in the spirit of co-creation. Also, the foundation invested budgets and resources to advance the industrial development.

- The Guogang Community at the Nuannuan District of Keelung, Happiness Food Social Enterprise in Pingtung, and the Xin Laiyi Tribe in Pingtung were assisted to flip the industrial landscapes collectively. In addition, at the end of the year, the "Result Presentation after Three Years of Click Taiwan" was organized to share with the public the tracks of efforts co-created with the local partners over the years.
- In the past 3 years, it went to 9 communities in Taitung, Pingtung, Hualien, and Keelung to collectively create design works like co-creation of New Year's gifts, local travel guides, logo and IP designs, recycling of marine debris, space renovation, etc., offering opportunities for the workers in the local industries to elevate themselves and cultivating local talents together with the communities.



### Guogang Community in Nuannuan, Keelung & Department of Industrial Design, National Yunlin University of Science and Technology

- The Guogang community in Nuannuan, Keelung, enjoys an ample energy for community building. The Department of Industrial Design, Yunlin University of Science and Technology employed the community's imagery of "Blue Magpie Wall" to design the key visual of the brand CIS in combination with the signature dishes of the local elders to open up the road to community industry.
- For the new appearance of the community to reach more audiences and groups, the team post articles on Facebook Page from the perspective of young people, so that the signature dishes of aunties could convey more warmth of home as well.

### Happiness Food Social Enterprise in Pingtung & Department of Industrial Design, National Kaohsiung University of Science and Technology

- Through the agri-food education, Happiness Food Social Enterprise in Pingtung encourages the children in rural areas to acquire the spirit of self-reliance in farming and raises the funds for the after-school tutoring for the children.
- The team of the Department of Industrial Design, Kaohsiung University of Science and Technology, fused the spirit of "palms down" into the produce box, visualized the promotional materials, and designed the LINE stickers, to help the social enterprise create their brand highlights, so that consumers can better appreciate the brand concept.

### Xin Laiyi Tribe in Pingtung & Department of Industrial Design, Yunlin University of Science and Technology

- Through the indigenous produce, the Xin Laiyi Tribe in Pingtung preserves the traditional culture of the tribe, promotes the culture of the Paiwan tribe, and bridges the gap between the tribe and different groups.
- The team of the Department of Industrial Design, Yunlin University of Science and Technology, employed the iconic "pinuljacengan" as the element to pack grains, utensils, recipes, and cultural stories into gift boxes, so that consumers or travelers can pack the entire tribal table to go.
- In addition, to prevent birds from pecking a huge amount of crops, the expertise of the Department of Industrial Design was fused to design a bird-proof device in echo with the philosophy of sharing with the land in symbiosis of the indigenous people.

### 2022 Social Contribution of Chunghwa Telecom Foundation

Unit: NT\$ dollars

Youth Empowerment	Digital Empowerment	Local Empowerment	Story Marketing	CHT Women's Basketball Team
1,887,212	3,653,318	4,203,206	4,025,928	24,279,824

Note: The table presents the actual allocation of the funds.

### Preferential Subsidies for the Disadvantaged Groups

Chunghwa Telecom has long been subsidizing telecom services for the socially disadvantaged, and assuring their access to basic communications. The following are the main preferential plan and amount in 2022.

Preferential Plan	Preferential Content	Preferential Amount (NT\$ thousand)	Beneficiaries (persons)
<b>Caring Series Rate Plan (Mobile)</b>	<ul style="list-style-type: none"> <li>Double communication hours from the original rate plan for the visually impaired, hearing impaired and speech impaired.</li> <li>300 free SMS intra-network and 100 free SMS extra-network for the hearing and speech impaired. The intra-network image telephone rate is the same for 3G customers.</li> </ul>	135	83
<b>Broadband Preferential Plan for Low-income Households</b>	50% off on 16M/3M, 35M/6M, 60M/20M, 100M/40M, ADSL 2M/64K & ADSL 5M/384K (removed after Feb. 17) monthly rate.	36,693	7,428 (households)
<b>4G Mobile Data Plan for the Disabled</b>	Disabled persons are entitled to an NT\$100 discounts for limited 399/436/499 plan, NT\$200 discounts on monthly subscriptions when subscribing to the 4G 599 plan and above plus Wi-Fi hotspots for free during the term of the contract.	65,362	43,005
<b>Heartwarming Plan (depends on the plan)</b>	We offer exclusive discounts for cellphone purchase and SIM-only plans. Besides the cellphone purchase discount, there are NT\$100-200 discount for the monthly subscription, free CHT Wi-Fi service, free extra data or unlimited data, add-ons, and extra talk time, and more.	25,771	20,121
<b>Broadband Preferential Plan for the Disabled</b>	<ul style="list-style-type: none"> <li>5% off on HiNet 16M/3M, 35M/6M, 60M/20M and 100M/40M monthly rate, 30% off for the announced rate of HiNet non-fixed monthly plan.</li> <li>15% off on ADSL 5M /384K monthly rate. 5% off for other speed rates. Monthly rate for non-fixed Internet plan with fixed price discount NT\$149.</li> </ul>	18,443	9,935 (accounts)

Preferential Plan	Preferential Content	Preferential Amount (NT\$ thousand)	Beneficiaries (persons)
<b>MOD Caring Plan and Project for the Socially Unfortunate</b>	<ul style="list-style-type: none"> <li>Platform charges: A 50% discount (NT\$45/month) from the work completion date.</li> <li>Subscribers of the projects are entitled to 30% discount, and the normal rate after the discount period expires.</li> </ul> <p>Note: The above plans all apply to the socially unfortunate and the caring project has no time limitation, the project for the socially unfortunate provides discounts for the first 24 months after the work completion date.</p>	<ul style="list-style-type: none"> <li>Caring Plan: 6,441 (2,382 accounts)</li> <li>Low-income Plan: 3,319 (1,163 accounts)</li> <li>Total: 9,760 (3,545 accounts)</li> </ul>	
<b>Healthy Net Plan</b>	Healthy Net Plan HiNet Adult Content Gatekeeper protects children from harmful websites such as pornography, violence, suicide, weapons, gambling, and drugs. The service in the first year is rendered to low-income households for free.	104	104
<b>Welfare Public Telephone</b>	<ul style="list-style-type: none"> <li>Installed 110 cm from the floor in public areas for the convenience of the disabled.</li> <li>The keyboard was designed with embossing on the 5 key for the visually impaired, and a voice adjustment function (from 3db to 6db) was provided exclusively for people with hearing aids.</li> <li>A slot for inserting is designed on the side of an IC card for the convenience of the visually impaired.</li> </ul>		
<b>Message Relay Service for the Hearing and Speech Impaired</b>	All telephone messages will be translated and faxed to the service hotline 0800-080885 (Help Me in Chinese homonym). The service personnel will then relay the message in voice and return the message to the hearing and speech impaired caller (up to 80 words for the relay and up to 30 words for reply). Those who are not hearing and speech impaired may also call the hotline (0800-080880) for the relay of messages via fax to the hearing and speech impaired. The service hours are 08:00 to 21:00 daily.		



## The Creation of Digital Opportunities

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

### a Community Network Tutoring—"Read with You"



Chunghwa Telecom has supported education and shown its concern for rural villages ever since 2009, in the aftermath of Typhoon Morakot. We extended our service to the permanent settlements and newly developed communities in the disaster zones. Using visual Internet technology, replacing roads with networks, we delivered educational resources in the form of private tutoring in rural villages for the unfortunate.

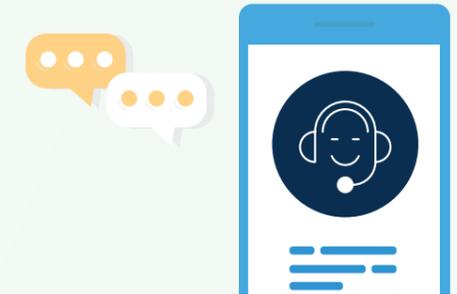
We hope to give the children of the next generation a learning environment which is safe, dignified, and hopeful.

<b>Goal</b>	By 2030, we hope to: <ul style="list-style-type: none"> <li>Assist 5,000 students in the remote areas with network tutoring.</li> <li>Accumulate more than 8,000 volunteers to participate in network tutoring.</li> <li>Accumulate more than 150,000 training hours for tutoring volunteers training.</li> </ul>		
<b>Characteristic</b>	Online education with one-on-one individual tutoring by university students helps pupils of junior high schools and primary schools in the rural villages to enhance their learning and provides equal learning opportunities.		
<b>Method</b>	<ul style="list-style-type: none"> <li>To realize the spirit of stakeholder engagement, we have cooperated with the Center of Care Services for Taiwan Rural Area Education at Fu Jen Catholic University.</li> <li>University students helped the cause with one-on-one tutoring to take care of the school children in the rural villages and disaster zones.</li> <li>Customized exclusive class supplements to care for the spiritual growth of schoolchildren through companionship, interaction and communication.</li> </ul>		
<b>Participant</b>	Taiwan Hope Association for Children and Juvenile (the Yingge Branch and Shulin Branch), Double A Plus Love Center in New Taipei City, Taoyuan Dayuan Catholic Church, Chiayi Fu Jen High School, Childcare Center in Tefuye, Chiayi County, Kaohsiung Daai Library, ihope Association of Tainan Assembly of God, Pingtung Feng-Lin Church, Taitung Kaulahan Association, Taitung Citong Library, Hualien Yuli Library, Matzu High School.		
<b>Major Result</b>	<ul style="list-style-type: none"> <li>University students improve the children's learning outcomes with one-on-one individual tutoring of the school children in rural villages. They also took care of their need for personal communication and interaction.</li> <li>More than ten-years efforts by e-Tutor, it has helped several dozen students gain admission to national and private universities, including the National Yang Ming University and Taipei Medical University. Assistance to remote villages has really reduced the divide between the cities and counties, radically improved the opportunities available to the children and changed their lives.</li> </ul>		
	Little Learning Buddies who have been Tutored	Big Learning Buddies as Tutors	Tutorial Hours
	<b>233 persons</b>	<b>378 persons</b>	<b>5,289 hours</b>

Note: The persons and training hours for the mid- and long-term targets for volunteers were adjusted thanks to the early attainment of the program's targets.

### b Assistance Application Development

We believe humanity to be the foundation of technology innovation. In 2013, we launched a Personal Assistance App that was specifically designed for the visually impaired. The App incorporates image, voice, reading, and lifestyle functions to assist both visually impaired and elders to face some of their difficulties. We also successfully developed "i4Blind" App in 2016 that makes a great assistant to the visually impaired and the elderly in life. In 2022, the number of logins hit 110 thousand with over 490 thousand viewings accumulatively.



### c EYE Social Innovative Call Center—Innovative Technology for Hope

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

- In 2020, we produced approximately 5,500 valid questionnaires with a yield rate over 96% on a monthly basis. In average, the 1999 Citizen Hotline of Taipei City processed about 8,000 calls monthly with 10 external entities visiting the call center annually, which made it a model for the other call centers.
- With a yield rate over 96% in 2021, we produced approximately 66,000 valid questionnaires in average, the 1999 Citizen Hotline of Taipei City processed about 12,000 calls monthly with 10 external entities visiting the call center annually, which made it a model for the other call centers.
- In 2022, 64,550 valid questionnaires were collected throughout the year with a yield rate of over 95%. The IPCC customer service platform was upgraded to the IPTS counterpart, and the visually impaired call center operators went through the upgrade seamlessly and smoothly for services; the broadband landline repair inquiry and broadband network repair inquiry services were added to the call services; 1 individual with severe spinal injuries hired as the operation, maintenance, and management personnel for the visually-impaired-friendly apps (Voice-based Personal Assistance App, i4Blind App, and i2See App), along with approximately 100 Braille e-books hitting the shelves monthly, and about 300 news articles daily.

\* Video [🔗](#)

### d Automated Voice System for Donations



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

# 6 Public Policy Participation

SUPPORT TO CULTURAL DEVELOPMENT

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In 2022, Chunghwa Telecom donated more than NT\$ 27,890,341 in the participation of public policy items including joining national and international associations, supporting government popularization services and constructions and developing its prospective industries.



We have joined almost 100 associations and groups to upgrade its technology and stimulate the development of the industry through exchange and cooperation within the industry or across different industries. The table below are the representative associations Chunghwa Telecom participates in.

Name of Association	Description	Qualification	Contribution / Membership Fee (NT\$ thousand)
Taiwan Electrical and Electronic Manufacturers' Association (TEEMA)	As one of the largest trade associations, it serves as a bridge between the government and the industry as well as between the industries at home and abroad.	Member	4,500
ICT Industry Alliance (hosted by TEEMA)	As an organ under TEEMA with a focus on the ICT industry, it is a vital platform for the domestic ICT industry players.	Participate in related Important Projects	3,000
Pacific Telecommunications Council, PTC	PTC is renowned telecom organization in the world. We have been the founding member since 1978, with our President as the representative of the Company at PTC.	Member	441
Cross-Strait CEO Summit	Starting from caring about the development of the communications industry of Taiwan, the summit facilitates the consensus of the industry on the industrial development via its activities, extensively discusses issues of industrial cooperation in depth, and promotes cooperation in competition to advance the mutual benefit and co-prosperity of economy across the Taiwan strait.	Member	300
Taiwan Telecommunication Engineering Industry Association	The association assembles the industry, government agencies, and academia, serving as a platform for the communication and discussion among the industry, government, and academia in the field. Through the various engineering seminars held by the association, it responds to government policies.	Member	280
Taiwan Business Council for Sustainable Development, BCSD-Taiwan	As part of the global alliance, the World Business Council for Sustainable Development (WBCSD), it converges the power of the business community to achieve the goal of sustainable development of enterprises and implement various sustainable development solutions.	Director	120
Intelligent Transportation Society of Taiwan	To communicate with the domestic members in the industry and stay abreast with the market and business opportunities in the related fields such as ITS intelligent transportation at home and abroad.	Member	200
Taiwan Telecommunication Industry Development Association, TTIDA	We care about the telecom industry in Taiwan and partake in Taiwan Telecommunication Industry Development Association, TTIDA, through the platform of which we jointly facilitate the overall development of the industry.	Director	100

Name of Association	Description	Qualification	Contribution / Membership Fee (NT\$ thousand)
AmCham Taipei	<ul style="list-style-type: none"> <li>To participate in the Telecommunications &amp; Media Committee and interact with industry members to stay abreast with the dynamics and business opportunities.</li> <li>To increase the advice channels and substantive effects of the Company on telecommunications policies, put forward suggestions on government policy issues, and assist in future development.</li> <li>To understand the direction and new policies of the government by participating in the seminars where officials from the central government are invited to elaborate on the governance, so as to aid the business layout of the Company.</li> </ul>	Member	120
GSMA	We interact and exchange with the members on mobile phone system experiences and learn about the latest development directions and technologies of the mobile phone systems in the world by participating in the association's roaming platform, conferences, and international exchange activities.	Member	15

## Support to Cultural Development



Chunghwa Telecom provides professional technical support such as 5G private network, mobile edge computing, and AR/VR application technologies, making it easier for people to enjoy digital culture and entertainment. Meanwhile, we also assist in the projects of domestic cultural development applications, collaborate with cultural institutions, jointly develop digital cultural contents, and further promote the development of Taiwan's cultural and creative industries. In 2022, we allocated resources worth more than NT\$80 million cumulatively. The projects it supported include:

1. Turn Left, Turn Right. Love, or Regret at the National Theater and Concert Hall; U-Theatre Kailash Pilgrimage with performances in two different theaters simultaneously
2. Smart guided tour experience to the historic relics of the Chikan Tower in Tainan
3. "5G Digital Graffiti" of Kaohsiung City Government
4. 5G kinetic e-sports container at the Penglai Pier in Kaohsiung
5. WebAR experience at Crystal Memories of Salt of NDC
6. Interactive VR experience at Gold Museum, New Taipei City
7. Immersive 5G interactive experience at Lanyang Museum
8. WebAR guided tour application for the Indigenous People Department, Taitung County Government, Christmas event in Nantou City, and Sha Yang Ye Robot Wonderland



# Index: GRI 2-9 Governance Structure and Composition

Name	Gender	Committee Participated	Number of other Significant Positions and Commitments Held / Nature of Commitment	Executive Director	Independence	Competencies Relevant to the Impacts of the Organization	Stakeholder Representation
Shui-Yi Kuo	Male	Corporate Strategy Committee	<ul style="list-style-type: none"> <li>Chairman &amp; CEO, Chunghwa Telecom Co., Ltd.</li> <li>Chairman, Corporate Strategy Committee</li> <li>Chairman, Sustainable Development Committee</li> <li>Chairman, Chunghwa Telecom Foundation</li> </ul>	V	-	<p>Chairman &amp; CEO Shui-Yi Kuo serves as the Chairman of the Sustainable Development Committee and the Chairman of Chunghwa Telecom Foundation concurrently.</p> <p>The "Sustainable Development Committee" was established to set up the company's sustainable development strategy and promote various sustainability/ESG action plans, driving the ICT industry's sustainable low-carbon transformation, creating a better living environment for future generations, and making more contributions to the sustainable development of the industry and society.</p> <p>With the practice of corporate social responsibility as the point of departure, Chunghwa Telecom Foundation has been working to implement its core concepts in communities, tribes, urban fringe, and regions with relatively scarce resources; bridge the digital divide between cities and rural communities and advance digital knowledge; support local community industries and restore local economy; develop and document community cultures and tell local stories.</p>	V
Hsiang-Ling Hu	Male	-	Political Deputy Minister, MOTC	-	-		V
Ching-Hwi Lee	Female	-	Deputy Minister, MOC	-	-		V
Shin-Yi Chang	Male	Corporate Strategy Committee	<ul style="list-style-type: none"> <li>Director, Department of Accounting, MOTC</li> <li>Supervisor, Taiwan International Ports Corp.</li> </ul>	-	-		V
Sin-Horng Chen	Male	-	<ul style="list-style-type: none"> <li>Chair Professor, Department of Electrical Engineering, National Yang Ming Chiao Tung University</li> <li>Independent Director, Chinesegamer International Corp.</li> </ul>	-	-		V
Hsiu-Chuan Tsai	Female	-	<ul style="list-style-type: none"> <li>Chairperson &amp; Professor, Department of Political Science, Soochow University, Taiwan</li> <li>Supervisor, Central News Agency</li> <li>Director, Transparency International Chinese Taipei, under Transparency International</li> </ul>	-	-	<p>Director Hsiu-Chuan Tsai specializes in government governance, anti-corruption, and transparent governance, government and policy marketing, etc. She is currently serving as a director to Transparency international Chinese Taipei (TICT). The crucial mission of TICT is to promote transparency in the government and integrity in the society in Taiwan, thereby fulfilling its purpose of improving the quality of democracy and the national competitiveness in Taiwan. With her expertise and work experience, Director Tsai has provided advice to the Board of Directors multiple times on anti-corruption and organizational development.</p>	V
Yu-Fen Lin	Female	Compensation Committee, Audit Committee	<ul style="list-style-type: none"> <li>Chairman, Compensation Committee</li> <li>Managing Partner, Lex &amp; Honor Attorneys-at-Law</li> <li>Independent Director, SINBON Electronics Co., Ltd.</li> <li>Independent Director, Bank SinoPac Co., Ltd.</li> </ul>	-	V		-
Chung-Chin Lu	Male	Audit Committee, Corporate Strategy Committee	<ul style="list-style-type: none"> <li>Professor, Electrical Engineering Department, National Tsing Hua University</li> <li>Director, National Science &amp; Technology Center for Disaster Reduction</li> </ul>	-	V	<p>The independent director Chung-Chin Lu concurrently serves as the director of the National Science and Technology Center for Disaster Reduction. His expertise is sufficient to assist in providing relevant consultation on disaster reduction efforts, accelerating the research, development, and implementation of disaster reduction technology as well as strengthening disaster reduction policies and measures.</p>	-
Yi-Chin Tu	Male	Audit Committee, Corporate Strategy Committee	<ul style="list-style-type: none"> <li>Chairman of Taiwan AI Labs &amp; Foundation</li> <li>Director, Taiwan Creative Content Agency</li> </ul>	-	V	<p>The independent director Yi-Chin Tu is the founder of Taiwan AI Labs. Formerly the Chief R&amp;D Officer at Asia Pacific region of Microsoft, the head of the senior programming group of the National Human Genome Research Institute (NHGRI) at the U.S. National Institutes of Health (NIH), and the founder of PTT Bulletin Board System, Tu possesses expertise and industry experience in line with the competences we need to drive emerging businesses.</p>	-
Su-ming Lin	Male	Audit Committee, Compensation Committee, Corporate Strategy Committee	<ul style="list-style-type: none"> <li>Chairman, Audit Committee</li> <li>Professor, Department of Accounting, College of Management, National Taiwan University</li> <li>Independent Director, Taiwan Fertilizer Co., Ltd.</li> </ul>	-	V		-
Chia-Chung Chen	Male	Audit Committee, Compensation Committee, Corporate Strategy Committee	<ul style="list-style-type: none"> <li>Independent Director, Dimerco Data System Corporation</li> <li>Director, Mega Financial Holding Co., Ltd.</li> <li>Director, Mega International Commercial Bank Co., Ltd.</li> </ul>	-	V	<p>The independent director Chia-Chung Chen is equipped with the professional competence and experiences in risk management as recognized by MSCI.</p>	-
Shih-Hung Tseng	Male	Corporate Strategy Committee		-	-		V

Notes: 1. There are no under-represented group. 2. Tenure: 2022/5~2025/5.

## GRI Standard Index

<b>Statement of Use</b>	The reporting organization, Chunghwa Telecom Co., Ltd. has reported the content for the period from January 1, 2022 to December 31, 2022 in accordance with GRI standard.
<b>GRI 1 Used</b>	GRI 1: Foundation 2021

GRI Standards	Disclosure Items	Page / Comment	Omission		
			Requirement	Reason	Explanation
<b>GRI 2: General Disclosure 2021</b>					
<b>The organization and its reporting practices</b>					
2-1	Organizational details	1			
2-2	Entities included in the organization's sustainability reporting	1			
2-3	Reporting period, frequency and contact point	1			
2-4	Restatements of information	None			
2-5	External assurance	168-170			
<b>Activities and workers</b>					
2-6	Activities, value chain and other business relationships	15			
2-7	Employees	85-87			
2-8	Workers who are not employees	87			
<b>Governance</b>					
2-9	Governance structure and composition	18			
2-10	Nomination and selection of the highest governance body	18			
2-11	Chair of the highest governance body	18			
2-12	Role of the highest governance body in overseeing the management of impacts	29			
2-13	Delegation of responsibility for managing impacts	29			
2-14	Role of the highest governance body in sustainability reporting	29			
2-15	Conflicts of interest	21			
2-16	Communication of critical concerns	18			
2-17	Collective knowledge of the highest governance body	29			
2-18	Evaluation of the performance of the highest governance body	22			
2-19	Remuneration policies	82-84			
2-20	Process to determine remuneration	82-84			
2-21	Annual total compensation ratio	84			

GRI Standards	Disclosure Items	Page / Comment	Omission		
			Requirement	Reason	Explanation
2-22	Statement on sustainable development strategy	4-5			
2-23	Policy commitments	24-25			
2-24	Embedding policy commitments	24-25			
2-25	Processes to remediate negative impacts	26			
2-26	Mechanisms for seeking advice and raising concerns	25			
2-27	Compliance with laws and regulations	27			
2-28	Membership associations	156			
<b>Stakeholder engagement</b>					
2-29	Approach to stakeholder engagement	48-51			
2-30	Collective bargaining agreements	89			
<b>GRI 3: Material Topics 2021</b>					
3-1	Process to determine material topics	40-41			
3-2	List of material topics	42-45			
3-3	Management of material topics	46-47			
<b>GRI 202: Market Presence 2016</b>					
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	86			
202-2	Proportion of senior management hired from the local community	86			
<b>GRI 204: Procurement Practices 2016</b>					
204-1	Proportion of spending on local suppliers	131			
<b>GRI 205: Anti-corruption 2016</b>					
205-1	Operations assessed for risks related to corruption	26			
205-2	Communication and training about anti-corruption policies and procedures	24-25			
205-3	Confirmed incidents of corruption and actions taken	26			

GRI Standards	Disclosure Items	Page / Comment	Omission		
			Requirement	Reason	Explanation
<b>GRI 305: Emissions 2016</b>					
305-1	Direct (Scope 1) GHG emissions	64			
305-2	Energy indirect (Scope 2) GHG emissions	64			
305-3	Other indirect (Scope 3) GHG emissions	64			
305-4	GHG emissions intensity	64, 119, 121			
305-5	Reduction of GHG emissions	64			
305-6	Emissions of ozone-depleting substances (ODS)	64			
305-7	Nitrogen oxides (NOx) sulfur oxides (SOX), and other significant air emissions	64			
<b>GRI 308: Supplier Environmental Assessment 2016</b>					
308-1	New suppliers that were screened using environmental criteria	131			
308-2	Negative environmental impacts in the supply chain and actions taken	131			
<b>GRI 405: Diversity and Equal Opportunity 2016</b>					
405-1	Diversity of governance bodies and employees	18, 85-86			
405-2	Ratio of basic salary and remuneration of women to men	86			
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b> (Not material topic, disclosure as required by government policy)					
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	None			
<b>GRI 416: Customer Health and Safety 2016</b>					
416-1	Assessment of the health and safety impacts of product and service categories	107-109, 114			
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	None			
<b>GRI 418: Customer Privacy 2016</b>					
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	None			

## SUSTAINABILITY ACCOUNTING STANDARDS BOARD DISCLOSURE

For the content and page numbers, please visit the official website of Chunghwa Telecom: Sustainability/ESG: SASB Report

Table 1. Sustainability Disclosure Topics & Accounting Metrics

SASB Topic	SASB Code	Accounting Metric	Page
Environmental Footprint of Operations	TC-TL-130a.1	1. Total energy consumed	3
		2. Percentage grid electricity	
		3. Percentage renewable	
Data Privacy	TC-TL-220a.1	Description of policies and practices relating to behavioral advertising and customer privacy	4
	TC-TL-220a.2	Number of customers whose information is used for secondary purposes	5
	TC-TL-220a.3	Total amount of monetary losses as a result of legal proceedings associated with customer privacy	5
	TC-TL-220a.4	1. Number of law enforcement requests for customer information 2. Number of customers whose information was requested 3. Percentage resulting in disclosure	5
Data Security	TC-TL-230a.1	1. Number of data breaches 2. Percentage involving personally identifiable information (PII) 3. Number of customers affected	7
	TC-TL-230a.2	Description of approach to identifying and addressing data security risks, including use of third-party cybersecurity standards	7
Product End-of-life Management	TC-TL-440a.1	1. Materials recovered through take back programs, percentage of recovered materials that were 2. Reused 3. Recycled 4. Landfilled	9
Competitive Behavior & Open Internet	TC-TL-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations	10
	TC-TL-520a.2	Average actual sustained download speed of 1. Owned and commercially-associated content 2. Non-associated content	10
	TC-TL-520a.3	Description of risks and opportunities associated with net neutrality, paid peering, zero rating, and related practices	11
Managing Systemic Risks from Technology Disruptions	TC-TL-550a.1	1. System average interruption frequency and 2. Customer average interruption duration	12
	TC-TL-550a.2	Discussion of systems to provide unimpeded service during service interruptions	12

Table 2. Activity Metrics

SASB Code	Activity Metric	Page
TC-TL-000.A	Number of wireless subscribers	13
TC-TL-000.B	Number of wireline subscribers	13
TC-TL-000.C	Number of broadband subscribers	13
TC-TL-000.D	Network traffic	13

### Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies

#### Sustainability Disclosure Metrics – Communication Network Industry

No.	Disclosure Items	Metric
1	Total energy consumed, percentage of purchased electricity, and rate of renewable energy use	5,191,758 GJ/ 94.67%/ 1.67%
2	Total water withdrawal and total water consumption	2,175,203M <sup>3</sup> / 2,167,750M <sup>3</sup>
3	Weight of hazardous waste generated and percentage recycled	940t, 100%
4	Description of categories of and the number of people and rate subject to occupational accidents	Traffic accidents, fall, tumble/ 36 cases/ 0.9%
5	Disclosure of life cycle management of products: including the weight of end-of-life products and e-waste and the percentage recycled	10.536t/ 90.19%
6	Description of the risk management associated with the use of key materials	Critical materials including scrapped lead-acid batteries, cement poles, fiber optic cables, woods, and batteries containing cadmium in Telecom IDCs are entrusted to a private waste disposal organization approved by the environmental protection authority for treatment, and therefore, there is no actual or potential significant environmental/social risk.
7	Total amount of monetary losses as a result of legal proceedings associated with the act of anti-competitive behaviors	None
8	Production of major products by product category	Please refer to p.15 of the ESG Report

## Disclosure of Climate-related Information for TWSE/TPEX-Listed Companies

No.	Disclosure Items	Execution
1	Description of the oversight and governance by the Board of Directors and the management on climate-related risks and performance	58
2	Description of how the identified climate risks and opportunities affect the businesses, strategies, and finances of the Company (in the short, medium, and long term)	61
3	Description of the financial impact arising from extreme weather events and transitional actions	61
4	Description of how the climate risk identification, assessment, and management processes are integrated into the overall risk management system	58-59
5	Description of the used scenarios, parameters, assumptions, analysis factors, and main financial impacts if scenario analysis is used to analyze or assess the resilience against climate change risks	60
6	Description of the content as well as the metrics and targets used to identify and manage physical risks and transition risks for any transition plan to respond or manage climate-related risks	62-63
7	Description of the basis for pricing if an internal carbon price is used  Note: The price of internal carbon pricing is set based on international viewpoints, such as the additional expenditure on renewable energy required to achieve the carbon reduction target, the European Union's CBAM price, and the World Bank's proposed carbon price, etc. After a comprehensive evaluation, the price is set at NT\$1,600/ton of carbon.	29
8	Description of the activities covered, scope of greenhouse gas emissions, timeframes planned, annual progress and so on if climate-related targets are set; description of the sources and quantity of carbon credits or the quantity of renewable energy certificates (RECs) for offset if carbon offset or RECs are employed to achieve relevant targets	117-119
9	GHG inventory and assurance  Notes: 1. Basic information: Companies with capitalization of \$10 billion or more 2. At least one disclosure should be made in accordance with the requirements of the sustainable development path of listed companies: Inventory of parent company 3. Assurance agency: TÜV SÜD	64



## ASSURANCE STATEMENT

### SGS TAIWAN LTD.'S REPORT ON SUSTAINABILITY ACTIVITIES IN THE CHUNGHWA TELECOM CO., LTD.'s ESG REPORT FOR 2022

#### 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 ESG Report for 2022 (hereinafter referred to as the ESG Report). The scope of assurance is based on the SGS Sustainability Report Assurance methodology and AA1000 Assurance Standard v3 Type 2 High level to assess whether the text and data in accompanying tables contained in the report and complies with the GRI Universal Standard (2021) and AA1000 Accountability Principles (2018) and Sustainability Accounting Standards Board (SASB) during on-site verification in the period between 20th April 2023 to 1st June 2023 in CHT headquarter. The boundary of this report includes CHT Taiwan operational and service sites' specific performance data included the sampled text, and data in accompanying tables, contained in the report presented. SGS reserves the right to update the assurance statement from time to time depending on the level of report content discrepancy of the published version from the agreed standards requirements.

#### INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided with the intention of informing all CHT's Stakeholders.

#### RESPONSIBILITIES

The information in the CHT's ESG Report of 2022 and its presentation are the responsibility of the directors or governing body (as applicable) and management of CHT. SGS has not been involved in the preparation of any of the material included in the ESG Report.

Our responsibility is to express an opinion on the report content within the scope of verification with the intention to inform all CHT's stakeholders.

#### ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE

The SGS ESG & Sustainability Report Assurance protocols used to conduct assurance are based upon internationally recognized assurance guidance and standards including the principles of reporting process contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) GRI 1: Foundation 2021 for report quality, GRI 2 General Disclosure 2021 for organisation's reporting practices and other organizational detail, GRI 3 2021 for organisation's process of determining material topics, its list of material topics and how to manages each topic, and the guidance on levels of assurance contained within the AA1000 series of standards and/or ISAE3000.

The assurance of this report has been conducted according to the following Assurance Standards:

Assurance Standard Options	Level of Assurance
A	SGS ESG & SRA Assurance Protocols (based on GRI Principles and guidance in AA1000)
B	AA1000ASv3 Type 2 High (AA1000AP Evaluation plus evaluation of Specified Performance Information)

#### SCOPE OF ASSURANCE AND REPORTING CRITERIA

The scope of the assurance included evaluation of quality, accuracy and reliability of specified performance information as detailed below and evaluation of adherence to the following reporting criteria:

Reporting Criteria Options	
1	GRI Universal Standard (2021) (In Accordance with)
2	AA1000 Accountability Principles (2018)
3	SASB(TELECOMMUNICATION SERVICES INDUSTRY STANDARD, VERSION 2018-10)
4	<IR> Framework (Chinese version 2015)

- evaluation of content veracity of the sustainability performance information in relation to the determined material topics at a high level of scrutiny for CHT and moderate level of scrutiny for subsidiaries, joint ventures, and applicable aspect boundaries outside of the organization covered by this report;
- AA1000 Assurance Standard v3 Type 2 evaluation of the report content and supporting management systems against the AA1000 Accountability Principles (2018); and
- evaluation of the report against the requirements of Global Reporting Initiative Universal Standard 2021 (GRI 2, GRI 3, 200, 300 and 400 series) claimed in the GRI content index as material and in accordance with.
- evaluation of the report against the SASB Disclosures and Metrics included in the TELECOMMUNICATION SERVICES INDUSTRY STANDARD, VERSION 2018-10 and conducted alongside an evaluation of accuracy assurance at moderate level of scrutiny.
- evaluation of the report against the IIRC International <IR> Framework (Chinese version 2015) requirements for content elements.

#### ASSURANCE METHODOLOGY

The assurance comprised a combination of pre-assurance research, interviews with relevant employees, superintendents, ESG committee members and the senior management in Taiwan; documentation and record review and validation with external bodies and/or stakeholders where relevant.

#### LIMITATIONS AND MITIGATION

Financial data drawn directly from independently audited financial accounts, and Task Force on Climate-related Financial Disclosures (TCFD) related disclosures 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, RBA, 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 specified performance information included in the scope of assurance is accurate, reliable, has been fairly stated and has been prepared, in all material respects, in accordance with the reporting criteria.

We believe that the organisation has chosen an appropriate level of assurance for this stage in their reporting.

#### AA1000 ACCOUNTABILITY PRINCIPLES (2018) CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

##### Inclusivity

CHT has demonstrated a good commitment to stakeholder inclusivity and stakeholder engagement. A variety of engagement efforts such as survey and communication to employees, customers, investors, suppliers, sustainability experts, and other stakeholders are implemented to underpin the organization's understanding of stakeholder concerns. For future reporting, CHT may proactively consider having more direct two-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 these 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.

**Impact**

CHT has demonstrated a process on identify and fairly represented impacts that encompass a range of environmental, social and governance topics from wide range of sources, such as activities, policies, programs, decisions and products and services, as well as any related performance. Measurement and evaluation of its impacts related to material topic were in place at target setting with combination of qualitative and quantitative measurements.

**GLOBAL REPORTING INITIATIVE REPORTING STANDARDS CONCLUSIONS, FINDINGS AND RECOMMENDATIONS**

The report, CHT's ESG Report of 2022, is adequately in accordance with the GRI Universal Standards 2021 and complies with the requirements set out in section 3 of GRI 1 Foundation 2021, where the significant impacts on the economy, environment, and people, including impacts on their human rights are assessed and disclosed following the guidance defined in GRI 3: Material Topic 2021, and the relevant 200/300/400 series Topic Standard related to Material Topic have been disclosed. For future reporting, it is recommended to have more descriptions on how the organization has applied due diligence as a method for the identification and the evaluation of its impacts on the economy, environment, and people, including impacts on their human rights as well as the role of the highest governance body in overseeing these processes. In addition, an effective data management optimization is expected to be set in place which is for CHT to enhance the disclosure information reliability and its data quality.

**SASB CONCLUSIONS, FINDINGS AND RECOMMENDATIONS**

CHT has referenced with SASB's Standard, TECHNOLOGY & COMMUNICATIONS SECTOR-TELECOMMUNICATION SERVICES INDUSTRY STANDARD, VERSION 2018-10 to disclose information of material topics that are vital for enterprise value creation. The reporting boundary is the same as CHT's ESG report. CHT used SASB accounting and activity metrics to assess and manage the topic-related risks and opportunities, where relevant quantitative information was assessed for its accuracy and completeness to support the comparability of the data reported. CHT has determined which disclosure topics and associated metrics are financially material to its business and has illustrated appropriately in the content index. By using both GRI and SASB standards together, the efficiency of communication and the identification of material issues are substantially increased during the whole reporting preparation process. Besides, it is best practice to implement a gap analysis and comparison of reported issues and benchmark within or across sectors in next reporting.

Signed:

For and on behalf of SGS Taiwan Ltd.

Stephen Pao  
Knowledge Deputy General Manager  
Taipei, Taiwan  
27 June, 2023  
[WWW.SGS.COM](http://WWW.SGS.COM)

