



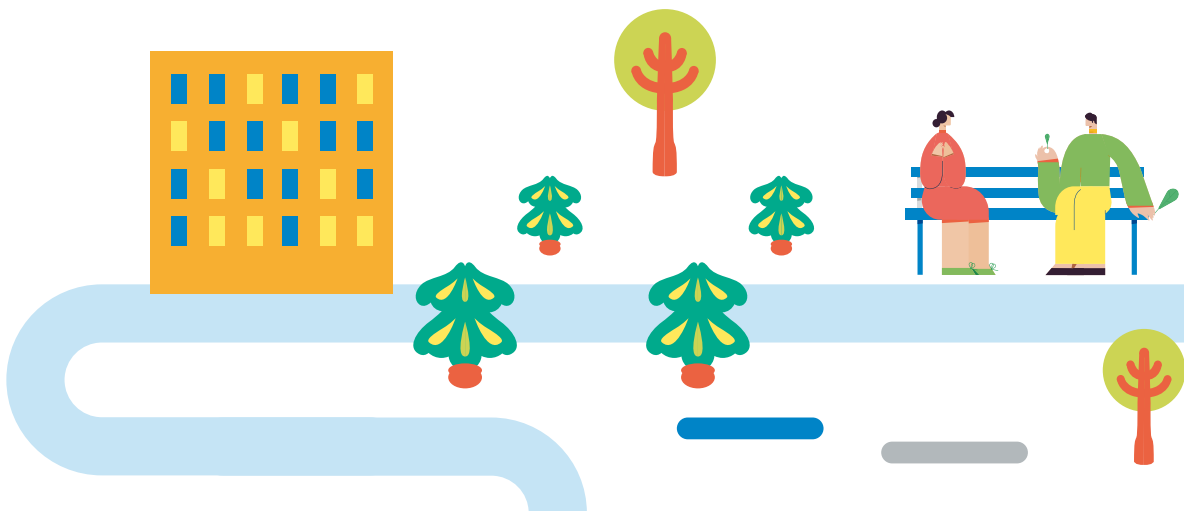
# 2019

## Environmental, Social and Governance Report

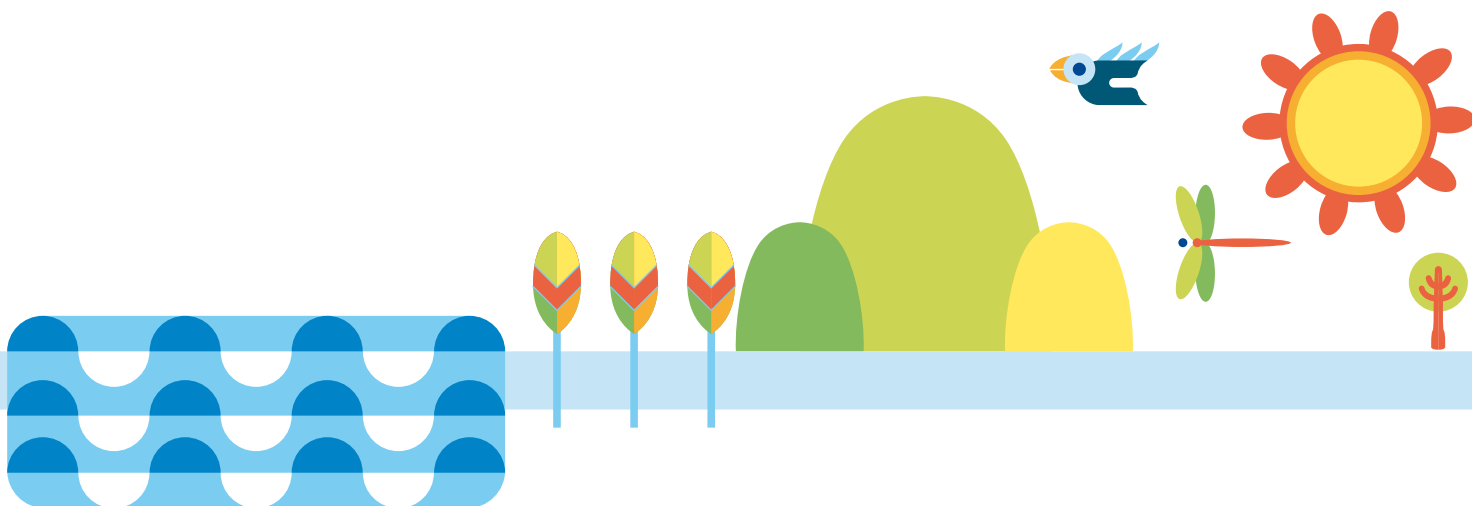
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## GROUP MANAGING DIRECTOR'S MESSAGE



I am pleased to present PCCW's Environmental, Social and Governance (ESG) Report for 2019 and share our sustainability efforts with stakeholders.

PCCW has a diverse business portfolio, comprising telecommunications, media entertainment and IT solutions. As a result, we also serve a broad spectrum of customers. Operating our business in an ethical, social, and environmentally responsible way is always our guiding principle.

I am pleased that we have continued to make progress in our CSR aspects including our three focus areas.

We are committed to building a diverse and inclusive community empowered by technology. We support youth ICT education through university scholarships and education programs such as the Youth IT Exchange Tour. We also organize interactive workshops to promote connected and active living among the elderly. In addition, we continue to support Hong Kong's transformation to a smart city by researching and developing ICT solutions.

The concern about climate change demands prompt action. We promote environmentally friendly practices in our operations, paying special attention to energy efficiency and economic resource usage. For instance, our data centers incorporate energy-saving features, and their environmental management systems are certified to the ISO 14001:2015 standard.

A professional, productive, and cohesive workforce is the key to business success. We complement our staff training and development support with an emphasis on improving employee health and wellness, and on a flexible and family-friendly work environment. We have become signatories to the Joyful@Healthy Workplace Charter and the Racial Diversity and Inclusion Charter for Employers to promote staff well-being and to demonstrate our commitment to ethnic diversity respectively. This year's report also provides more voluntary data disclosure than before, offering an enhanced level of transparency.

I am grateful to our stakeholders for the suggestions that helped PCCW review and improve our sustainability performance. We look forward to working with our employees, customers, and the wider community to catalyze changes in building a sustainable future for everyone.

**BG Srinivas**

*Group Managing Director*

February 13, 2020





## ABOUT THIS REPORT

This is the Environmental, Social and Governance (“ESG”) Report for PCCW Limited (“PCCW” or the “Company”) and its subsidiaries (collectively referred to as the “Group” in this report).

PCCW Limited (SEHK: 0008) is a global company headquartered in Hong Kong which holds interests in telecommunications, media, IT solutions, property development and investment, and other businesses.

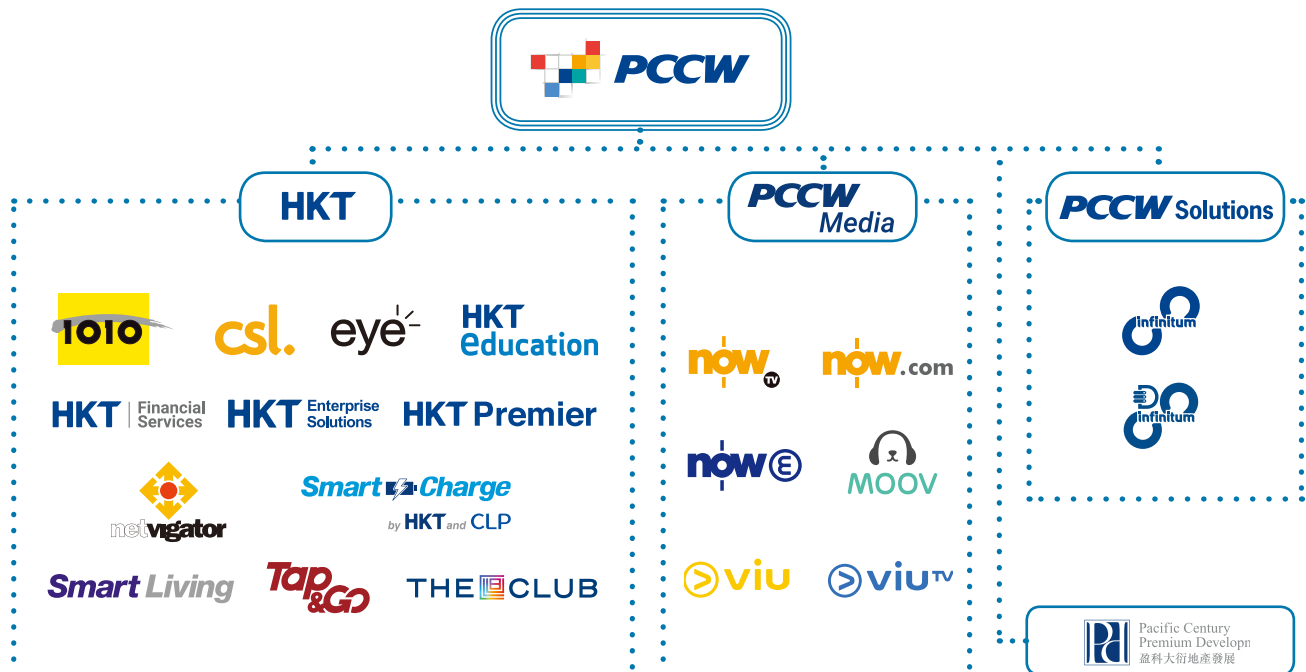
The Company holds a majority interest in the HKT Trust and HKT Limited (“HKT”) (SEHK: 6823). HKT is Hong Kong’s premier telecommunications service provider and leading operator in fixed-line, broadband and mobile communication services.

PCCW also owns a fully integrated multimedia and entertainment group in Hong Kong, PCCW Media. PCCW Media operates the largest local pay-TV operation, Now TV, and is engaged in the provision of over-the-top (OTT) video service under the Viu brand in Hong Kong and other places in the region. Through HK Television Entertainment Company Limited, PCCW also operates a domestic free television service in Hong Kong.

Also wholly-owned by the Group, PCCW Solutions is a leading information technology outsourcing and business process outsourcing provider in Hong Kong, mainland China, and Southeast Asia.

In addition, PCCW holds a majority interest in Pacific Century Premium Developments Limited (“PCPD”) (SEHK: 0432), and other overseas investments.

PCCW has created a variety of well-known products and service brands. Some of the more recognizable brands are shown as follows:



## Reporting Scope

This report covers PCCW's ESG accomplishments and challenges from January 1 to December 31, 2019, as well as our ongoing initiatives to enhance our ESG performance. The report covers PCCW's core businesses based in Hong Kong, namely telecommunications, media and IT solutions, respectively operated through our key subsidiaries HKT, PCCW Media and PCCW Solutions. These include the operations of our offices, retail shops, data centers, exchange sites, telecommunications sites and transmissions, unless otherwise specified. Where relevant, it also references the activities of subsidiaries and outsourced operations.

This report does not cover PCCW's joint ventures and PCPD. PCPD is issuing a separate ESG report.

The qualitative and quantitative information regarding PCCW's approach, initiatives and priorities in managing material ESG aspects is disclosed in the report. For further disclosures on corporate governance, please refer to the Corporate Governance Report of the PCCW Annual Report 2019.

## Reporting Standards and External Assurance

The report has been prepared in accordance with the "comply or explain" provisions of the Environmental, Social and Governance Reporting Guide (the "ESG Reporting Guide") in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited.

This report is one of the communication channels through which we connect with our stakeholders. We believe that ESG information that is meaningful and important to their decision-making should be disclosed. In this regard, the report is prepared with reference to the fundamental reporting principles set out in the ESG Reporting Guide.

<p><b>Materiality</b></p> <p>We performed a materiality review based on stakeholder engagement processes that determined material ESG aspects to PCCW and guided the focus of this report.</p>	<p><b>Quantitative</b></p> <p>We deployed a cloud-based data management platform to collect our ESG metrics and keep track of our performance. Where applicable, we compared year-to-year data and discussed its implications.</p>
<p><b>Balance</b></p> <p>To provide an unbiased picture of PCCW's performance, we discussed both our achievements and room for improvement in ESG.</p>	<p><b>Consistency</b></p> <p>This report adopted consistent methodologies to allow for a fair comparison of our performance over time.</p>

The environmental performance data in the report has been independently reviewed and verified by the Hong Kong Quality Assurance Agency. Please refer to the Assurance Report on page 53 for the verification scope and conclusion.

The Board of Directors (the "Board") of PCCW has the overall responsibility for our ESG strategies and reporting, as well as overseeing and managing our ESG-related risks. This report has been reviewed and approved by the Board.

Available in both Chinese and English, this report can be accessed at The Stock Exchange of Hong Kong Limited's ("HKEX") website and PCCW's website.

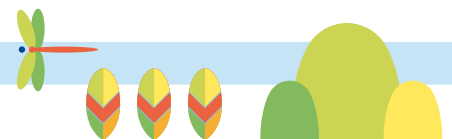
We value stakeholders' views and suggestions. Please let us know your feedback on our ESG management and reporting through contacting our Department of Group Communications via

Mail: 41/F, PCCW Tower, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong

Phone: +852 2888 2888

Fax: +852 2962 5634

Email: [esg@pccw.com](mailto:esg@pccw.com)




## HIGHLIGHTS

## EMPLOYEE WELL-BEING

Increased focus on staff **health and wellness**

## TALENT DIVERSITY

**1:1.51**  
 female to male staff


**33%**  
 of employees aged below 30

Employees of  
**65** nationalities

## OCCUPATIONAL SAFETY AND HEALTH

Over **390**  
 sessions of health and safety-related training

## TALENT DEVELOPMENT

**1,446**   
 learning and development programs and seminars

## COMMUNITY INVESTMENT

Set up a  
**HKT Elderly Hotline**

**41** ongoing and special programs with NGOs and charities

Over **HK\$21 million**  
 monetary donations and in-kind sponsorships



## EMISSIONS

Electricity consumption decreased by

**7.4GWh↓**



Energy intensity per employee decreased by

**2.81%↓**

Total Greenhouse gas emissions intensity per employee decreased by

**3.27%↓**



## USE OF RESOURCES

Cessation of publication of business telephone directories, saving over

**19 million**  
 sheets of paper per year

Usage of shopping bags in retail shops decreased by more than

**21%↓**

Conducted a  
**waste audit**



## DATA PRIVACY AND SECURITY

Set up **Group Information and Cyber Security Council** to oversee cybersecurity issues

**ISO 27001** certified  
 Information Security Management Systems

## RESPONSIBLE NETWORK MANAGEMENT

Acquired 120 MHz of  
**5G** spectrum from auctions

**100%** mobile reliability and  
**99.99%** broadband network stability

## SUPPLY CHAIN

**83%**  
 of our suppliers are Hong Kong-based

Attained  
**ISO 9001:2015**  
 Quality Management System

## CUSTOMER SATISFACTION

**65,109** customer compliments with  
 an increase of **23.2%↑**  
 compared with 2018



A decrease of  
 complaints received

**20.1%↓**

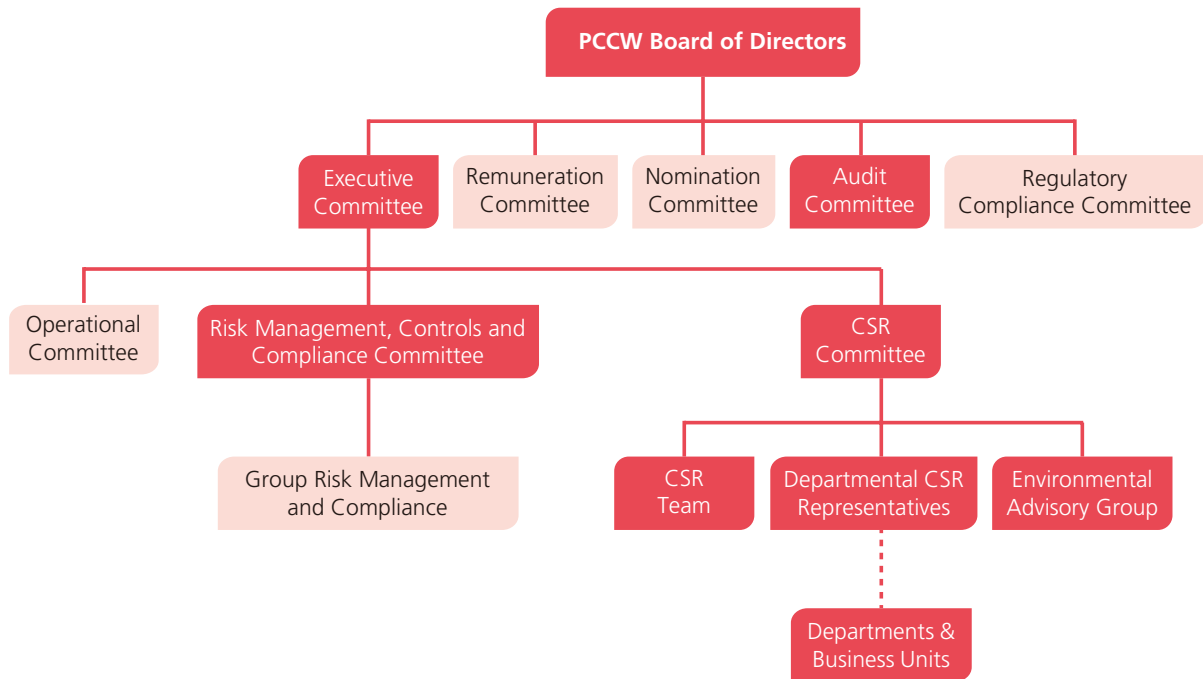


Conducted **330**  
 supplier visits to assess performance



# 1. CORPORATE SOCIAL RESPONSIBILITY AT PCCW

## 1.1 CSR Governance Structure and Oversight Responsibilities



PCCW's top management is committed to integrating corporate social responsibility ("CSR") in its business operation. The Board formulates strategies and oversees the environmental, social and governance ("ESG") performance. The Executive Committee maintains oversight of several sub-committees and working groups to ensure that CSR policies and risk management systems are implemented effectively.

Roles and responsibilities in managing CSR matters are defined within PCCW as follows:

Top management oversight	
<b>Board of Directors</b>	<ul style="list-style-type: none"> <li>Monitors corporate governance practices and procedures</li> <li>Maintains appropriate and effective risk management and internal control systems of the Group to ensure compliance with applicable rules and regulations</li> <li>Approves CSR Policy and Corporate Responsibility ("CR") Policy</li> <li>Reviews and approves the ESG report</li> </ul>
<b>Executive Committee</b>	<ul style="list-style-type: none"> <li>Operates as a general management committee with overall delegated authority from the Board</li> </ul>

<b>Audit Committee</b>	<ul style="list-style-type: none"> <li>Assists the Board to ensure the objectivity and credibility of financial reporting, and that the directors have exercised care, diligence and skills prescribed by law when presenting results to shareholders</li> <li>Assists the Board to ensure that effective risk management and internal control systems are in place and good corporate governance standards and practices are maintained</li> <li>Reviews and recommends the ESG report for the Board's approval</li> </ul>
<b>Risk Management, Controls and Compliance Committee</b>	<ul style="list-style-type: none"> <li>Reviews procedures for preparation of PCCW annual and interim reports and, from time to time, corporate policies of the Group to ensure compliance with the various rules and obligations of a Hong Kong-listed company</li> <li>Assists directors in the review of the effectiveness of the risk management and internal control systems of the Group on an ongoing basis</li> <li>Reviews and recommends the ESG report for submission to the Audit Committee</li> </ul>

### Managing CSR issues and implementing CSR initiatives

<b>CSR Committee</b>	<p>A sub-committee reporting to the Executive Committee and chaired by the Head of Group Communications, it is comprised of Group Functional Unit Heads from eight departments. The Committee:</p> <ul style="list-style-type: none"> <li>Reviews the Company's CSR strategy, principles and policies to ensure the Company operates in a manner that enhances its positive contribution to society and the environment</li> <li>Sets guidance and direction of and oversees CSR practices and procedures</li> <li>Monitors progress on CSR and related initiatives</li> <li>Reviews the ESG report</li> </ul>
<b>Environmental Advisory Group</b>	<p>An internal advisory body comprising group unit heads that:</p> <ul style="list-style-type: none"> <li>Advises on environmental policies and targets and makes recommendations to the CSR Committee</li> <li>Assists in the coordination of Business Units ("BUs") and cross-BUs environmental initiatives</li> </ul>
<b>CSR Team</b>	<p>Together with Departmental CSR Representatives, it:</p> <ul style="list-style-type: none"> <li>Promotes CSR internally and externally</li> <li>Organizes and implements CSR initiatives</li> <li>Prepares the ESG report</li> </ul>
<b>Departmental CSR Representatives</b>	<p>A total of 23 Departmental CSR Representatives:</p> <ul style="list-style-type: none"> <li>Serve as a bridge between the CSR Team and the department/BUs</li> <li>Facilitate implementation of CSR initiatives</li> <li>Raise CSR awareness of colleagues</li> <li>Assist in ESG reporting and ESG-related surveys</li> </ul>
<b>Departments and BUs</b>	<ul style="list-style-type: none"> <li>Implement CSR practices and ensure CSR compliance in daily operations</li> </ul>

A framework certified with ISO 31000:2018 Risk Management – Principles and Guidelines is in place to guide the Group's corporate risk management. Through the Three Lines of Defence model, our directors regularly evaluate and determine significant risks that may impact the Group's performance.

Group Risk Management and Compliance, which co-ordinates enterprise risk management activities and reviews significant aspects of risk management for the Group, reports to the Audit Committee at each regularly scheduled meeting, and other sub-committees as appropriate, including amongst other things, significant risks of the Group and the appropriate mitigation and/or transfer of identified risks. The operating units of the Group, as risk owners, identify, evaluate, mitigate and monitor their own risks, and report such risk management activities to Group Risk Management and Compliance on a regular basis. Group Risk Management and Compliance assesses and presents regular reports to the Risk Management, Controls and Compliance Committee at each regularly scheduled meeting.

In parallel, Group Internal Audit provides independent assurance and recommendations to the Board and the Audit Committee on the adequacy and effectiveness of internal controls through periodic and special reviews of the Group's operations and policies.

For more details on the composition and responsibilities of various committees of the Board, our risk management and internal controls, as well as the principal risks and uncertainties identified in relation to our key areas of management, please refer to the Corporate Governance Report and the Report of the Directors of PCCW's Annual Report 2019.

## 1.2 ESG Strategy

Being a key market player in telecommunications, media entertainment and enterprise IT solutions locally and globally, PCCW is fully cognizant of the need to play a key role in promoting sustainability and to make meaningful contributions to society.

Our management approach is to run our business in an ethically, socially and environmentally responsible manner, supporting and connecting the communities we serve. We must do this while maintaining service excellence and financial returns.

Referencing ISO 26000 Guidance on Social Responsibility, PCCW's CSR Policy sets out our overarching management principles, objectives and approach in the key areas of management in CSR. Our CR Policy provides the code of behaviors guiding all members of PCCW to work collectively on CSR integration in our business. Both policies are applicable to all directors, officers and employees of the Group, and communicated with third parties such as suppliers and contractors where applicable. We review and update these policies regularly with the Board's approval.



We have maintained detailed policies, guidelines and procedures to guide our operating practices across departments.

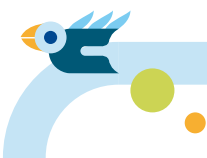


### 1.3 Ethics and Integrity

PCCW is committed to conducting its business and operations with high standards of ethics, honesty and integrity, in compliance with all applicable laws, regulations and the Group's policies. This requires all members of the Group to uphold an aligned standard of behavior that exceeds statutory mandates.

In this regard, our CR Policy and other PCCW Group policies provide practical guidelines on business conduct. Applicable to our directors, officers and employees, these policies ensure responsible behaviors and protection to stakeholders' rights in case of breach. Topics covered include but are not limited to:

- Bribery, gifts and entertainment
- Conflicts of interest
- Fair competition
- Inside information
- Discrimination, harassment and inappropriate conduct
- Equal opportunities
- Privacy and information protection
- Workplace health and safety
- Considerate and civic responsibility
- Whistleblowing to report improper conduct





### Anti-corruption

PCCW has adopted a zero-tolerance policy for bribery or corruption in any form or at any level. PCCW members are required to act in compliance with the Group's Bribery, Gifts and Entertainment Policy. This internal policy defines the behaviors that constitute corruption which should be avoided. It covers advantages in both monetary and in-kind forms, such as kickbacks, improper gratuities, contracts, duty or power in return for favorable treatment, business outcome or benefit. Exchanging advantages with government officials is strictly prohibited.

PCCW takes specific measures to encourage diligence among employees. Employees must acknowledge and comply with our CR Policy by signing a declaration upon employment and annually during their performance review. When potential conflicts of interest arise, employees may consult their line manager for clarification. Application and declaration forms are available on the Company's intranet.

### Whistleblowing

PCCW's Improper Conduct Notification Policy encourages all internal and external stakeholders to report actual or suspected improper conduct in confidence to the Company's Group Internal Audit function. Employees can make written reports via mail or email. They can also make verbal reports by phoning a dedicated hotline that does not log caller ID.

Following a report, an independent senior staff member conducts an investigation on behalf of the Audit Committee, assisted by relevant Internal Audit, Human Resources and Legal functions. The investigation follows procedures laid out in the Group's Unethical Conduct Notification Procedures Manual, and the complainant is informed of the progress. Results including the final disposition, impact, implications, and disciplinary or corrective actions are reported to the chair of the Audit Committee and to the Board and/or regulatory authorities where appropriate.

### Ensuring compliance

Any individual who violates PCCW policies, procedures and guidelines may receive verbal or written warnings or be summarily dismissed depending on the severity of the infraction. We monitor and identify applicable laws and regulations which have a significant impact on the Group as well as their latest development. Various measures including internal controls and approval procedures and training are in place to raise staff awareness. For more details, please refer to the Report of the Directors in PCCW's Annual Report 2019.

In 2019, there were no cases of non-compliance with the Prevention of Bribery Ordinance (Cap. 201) and other applicable laws and regulations related to corruption at PCCW, nor any legal cases concerned with corrupt practices brought against the Group or our employees.

## 1.4 Stakeholder Engagement and Materiality Review

Through regular stakeholder engagement, PCCW aims to make stakeholder-inclusive decisions and review our management priorities and performance. We also disclose material information in response to stakeholders' needs and expectations. These processes are guided by our CSR Policy, CR Policy and Shareholders Communication Policy.

### Stakeholder groups

We recognize stakeholders' rights to be heard and informed. Departments and BUs of PCCW maintain continuous communication with stakeholders through various channels.

External stakeholders		
Customers	Shareholders, investors and analysts	Community and media
<ul style="list-style-type: none"> <li>• Service hotlines</li> <li>• Website and social media</li> <li>• Live webchat</li> <li>• My HKT portal</li> <li>• Customer satisfaction survey and transaction survey</li> <li>• Net promoter score survey</li> </ul>	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Annual general meeting</li> <li>• Annual, interim and ESG reports</li> <li>• Circulars and press release</li> <li>• Analyst briefings</li> <li>• Website of HKEX</li> </ul>	<ul style="list-style-type: none"> <li>• Campaigns</li> <li>• Seminars</li> <li>• Website and social media</li> <li>• Press releases and conferences</li> <li>• Media enquiries</li> </ul>
Government and regulators	Suppliers and business partners	NGOs
<ul style="list-style-type: none"> <li>• General liaison</li> </ul>	<ul style="list-style-type: none"> <li>• Supplier review and assessment visits</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate volunteering</li> <li>• Collaborative projects</li> </ul>

### Internal stakeholders – The management and employees

- Face-to-face meetings
- Let's Chat sessions
- Forums
- Town-hall-style gatherings
- Employee satisfaction survey



### Materiality review

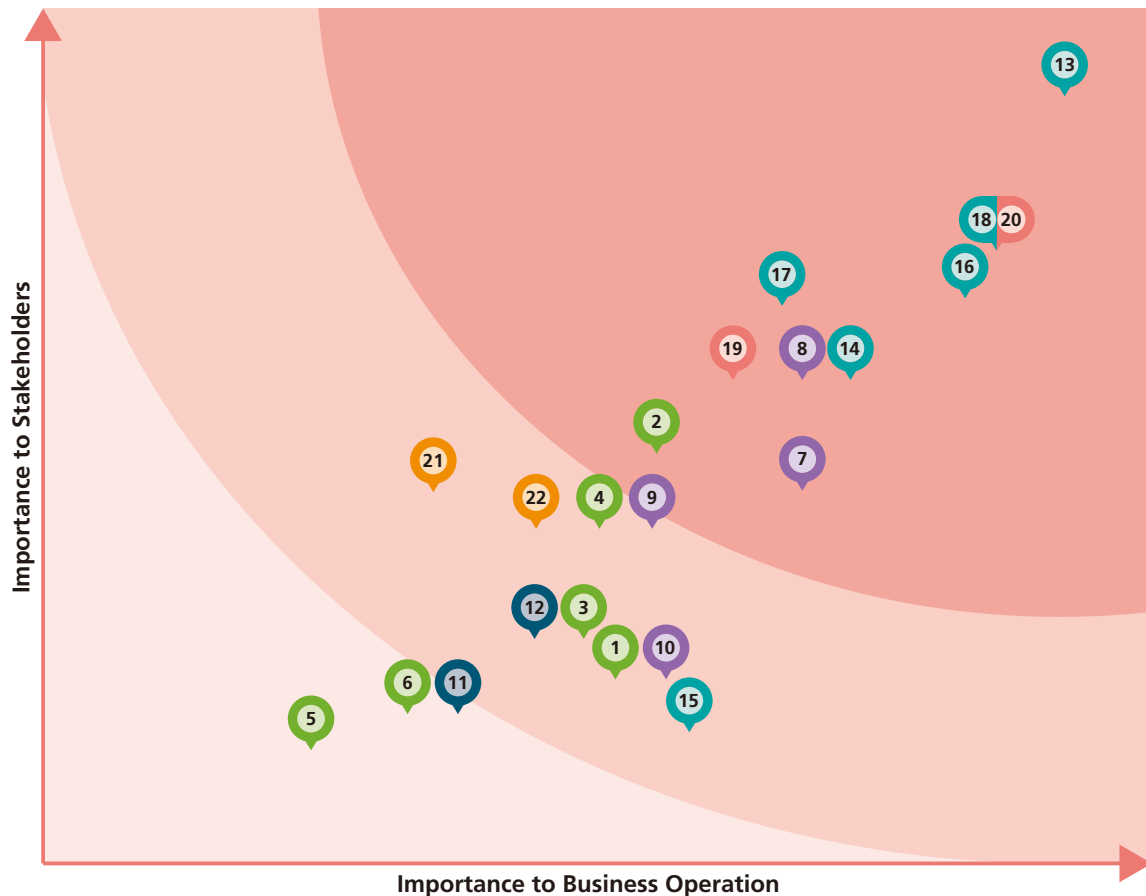
PCCW conducts an annual materiality review on ESG-related topics based on stakeholder engagement activities. This year, PCCW also reviewed the list of ESG topics based on a peer benchmarking exercise and internal evaluation to ensure it is updated and relevant to the development of the industry and the Group.

Facilitated by an independent consultant, PCCW engaged both internal and external stakeholder groups through focus groups and interviews. Internally, it worked with the Group Unit Heads and staff members. Externally, it engaged investors, suppliers and contractors, corporate clients, business partners, academics and community partners.

These in-depth dialogues helped us to collect stakeholder feedback on PCCW's ESG performance, and suggestions for future priorities. We also invited participants to score ESG issues based on their importance to stakeholders and PCCW business operations.

Our CSR Committee evaluated this feedback based on the analysis of the qualitative and quantitative input from the stakeholder engagement exercises.

**PCCW's Materiality Matrix 2019**



**ESG Aspects****Environmental**

- |   |                                  |
|---|----------------------------------|
| 1 | Energy efficiency                |
| 2 | Waste management                 |
| 3 | Green ICT solutions              |
| 4 | Employee environmental awareness |
| 5 | Greenhouse gas (GHG) emissions*  |
| 6 | Climate change*                  |

**Employment and Labor Standards**

- |    |   |
|----|---|
| 7  | Employee retention and talent development |
| 8  | Occupational safety and health            |
| 9  | Human rights                              |
| 10 | Employee diversity*                       |

**Supply Chain Management**

- |    |                          |
|----|--------------------------|
| 11 | Supply chain management  |
| 12 | Sustainable procurement* |

**Product Responsibility**

- |    |  |
|----|--|
| 13 | Customer data privacy and protection               |
| 14 | Responsible advertising                            |
| 15 | Content dissemination to different audience groups |
| 16 | Reliable services and products                     |
| 17 | Customer service and satisfaction                  |
| 18 | Information security and management*               |

**Corporate Governance**

- |    |  |
|----|--|
| 19 | Corporate governance and risk management |
| 20 | Anti-corruption                          |

**Community**

- |    |                                      |
|----|--------------------------------------|
| 21 | Community investment                 |
| 22 | Technology and education initiatives |

\* Newly added in 2019



Based on the dialogues and the scores given to each ESG aspect, PCCW noticed that top material aspects in 2019, located in the upper-right corner of the matrix, generally remain the same as those in 2018. Stakeholders regarded all aspects under product responsibility and corporate governance important and customer data privacy and protection became the top priority where information security and management, a newly added ESG aspect, ranked the second most material. Both internal and external stakeholders had an aligned view that these two are the top priorities to PCCW, followed by anti-corruption and reliable services and products. Waste management, employee retention and talent development, occupational safety and health also continued to fall into the sphere of high materiality.

For details of PCCW's policies and measures related to material aspects, please refer to the corresponding chapters of this report. In the future, we will continue to engage and maintain a communicative, collaborative relationship with our stakeholders to jointly contribute to sustainable development.

### 1.5 External Recognition

PCCW is a constituent member of the Hang Seng Corporate Sustainability Index Series and FTSE4Good Index Series.

## 2. OUR PEOPLE

We strive to provide a fair, inclusive and high performing work culture for our 23,916 employees<sup>1</sup> globally. We believe that human capital is a core organization capability that powers our long-term success. Endeavoring to be the Employer of Choice, we have devised talent strategies that drive towards enabling the best employee experience and sustaining a diverse and vibrant team.

### Objectives

- Cultivate a high performing and engaging culture
- Attract, develop and retain the right talent with robust bench planning and succession
- Foster a vibrant and diverse workforce providing the best employee experience

### Measures

- Drive a total reward system that recognizes and incentivizes performance
- Promote staff well-being and wellness for a healthy workplace
- Enable career mobility and development paths across the Group
- Enable cross-functional staff engagement and connection



### Staff Profile

Number of employees in Hong Kong:

Full-time staff:

14,832



Part-time staff (as full time equivalent):

176



Number of employees outside Hong Kong:

8,908

<sup>1</sup> Excluding PCPD employees.

Our comprehensive employment policies protect employees' rights and benefits while offering competitive pay and career progression opportunities. They comply with employment related laws and regulations in Hong Kong. These include:

- The four ordinances of anti-discrimination (sex, disability, family status and race);
- Employees' Compensation Ordinance (Cap. 282);
- Employment Ordinance (Cap. 57);
- Factories and Industrial Undertakings Ordinance (Cap. 59);
- Inland Revenue Ordinance (Cap. 112);
- Mandatory Provident Fund Schemes Ordinance (Cap. 485);
- Minimum Wage Ordinance (Cap. 608);
- Occupational Retirement Schemes Ordinance (Cap. 426);
- Occupational Safety and Health Ordinance (Cap. 509); and
- Personal Data (Privacy) Ordinance (Cap. 486).

## 2.1 Employee Well-being

PCCW recognizes the importance of work-life balance to our employees' well-being. Therefore, we promote work-life balance and work place flexibility options.

### Family friendliness

We provide up to 14 weeks' maternity leaves and five days' paternity leaves to allow employees to spend more time with their newborns. We also provide designated breastfeeding room in the office. Weekly working hours and staff rosters can be customized for those experiencing significant life events and with greater responsibilities.

### Health and well-being

In 2019, we signed the Joyful@Healthy Workplace Charter, launched by the Department of Health and the Occupational Safety and Health Council, to demonstrate our commitment to promote staff well-being. A series of healthy eating, physical and mental well-being activities were organized. We also organized 24 health talk sessions to raise our staff's health awareness. A survey is conducted at the beginning of each year to gather ideas from employees on what sort of health and wellness advice they seek, so as to help the future planning of these sessions.



### Health Talk on Dementia

We joined hands with the Social Welfare Department to organize a health talk on the topic of dementia. Representatives from the Hong Kong Alzheimer's Disease Association and the Social Welfare Department spoke to our employees on the ways to diagnose dementia early and the treatments available.

Our colleagues registered to be "Dementia Friends" during the seminar to support those with the condition.



Our Sports and Interest Group organize sports and recreational programs for our staff to enjoy. In 2019, it coordinated 17 staff sports teams ranging from Chinese chess and darts to fishing and lawn bowls, and four interest groups including hiking and photography. Our corporate teams competed in 13 matches organized by the Inter-Hong Games Association in 2019.

We continued to organize health lounge sessions, with free medical tests conducted by health professionals for our employees. In 2019, seven sessions of free tests were held at different office locations. Our medical plan provider also offered a self-service online health assessment for participants, who would receive an instant report on their health status, risk factors and recommendations for lifestyle changes to minimize health risks.

We offer medical benefits such as flu vaccinations for all and medical check-ups for staff aged 40 or above. Our healthcare program also covers hospital and surgical benefits, an outpatient doctor plan and a supplementary major medical plan.

Our Employee Assistance Programme provides 24-hour/7-day professional counseling hotline and emotional support for staff experiencing personal, family or work issues.

Financial wellness is closely related to one's mental health. In 2019, HKT signed the Financial Literacy Charter and became a Financial Literacy Strategy Supporting Organization of the Investor and Financial Education Council to strengthen financial education among staff. We introduced Manage My Finance Workshop to assist new recruits to take the first step in managing their personal finances.

### Connecting with our staff

The Group regularly publishes a newsletter on the intranet to keep all staff up to date with the latest news and Group-wide business developments. Our employees are welcomed to share feedback and suggestions with senior management via face-to-face meetings, "Let's Chat" sessions and town-hall-style gatherings. The Joint Staff Council also provides staff and management with a forum to meet regularly and exchange ideas on operational efficiency, career development and training, working conditions and the provision of social activities and recreational facilities.





## 2.2 Occupational Safety and Health

A Statement of Safety and Health Policy has been set out in accordance with the guidelines of Safety Management System since 2005. It is regularly audited and currently certified as level three on the Occupational Safety and Health Council's Continual Improvement Safety Programme Recognition of System (CISPROS).

To maintain high occupational safety and health standard across the Group, safety training is provided to new and existing staff regularly to raise their awareness on safe and healthy workplace behaviors, such as to report all injuries and unsafe conditions promptly to their immediate supervisors.

The safety trainings include:

- Accident investigation skills
- Certificate of Competence in Display Screen Equipment Assessment
- Confined space training
- Fire safety ambassadors training
- First aider training
- Hazard identification training
- Safety inspection training
- Safety supervisor training
- Work-at-height training

In 2019, we delivered more than 390 sessions of health and safety-related training to our staff.

We have appointed staff members as Designated Office Coordinators and Designated Fire Officers and First Aiders. These individuals are responsible for carrying out safety inspections to eliminate hazards and providing first-aid assistance in the event of an accident.

We insure all employees when undertaking business travel on PCCW's behalf. Eligible employees are covered by our personal accident insurance against accidental death and/or permanent disablement for both work- and non-work-related accidents. Our work injury care program supports injured employees during their recovery and rehabilitation, including doctor consultations and treatments.

There were no work-related fatalities in 2019.

## 2.3 Talent Retention and Development

The Group has established a robust succession plan and strong talent pipeline, along with comprehensive training and leadership programs, to build the human and organizational capital needed to fuel business growth.

### Training and development

Our training and development initiatives encourage professional growth and endorse career progression among our staff and young talents. Employees may participate in projects which equip them with advanced technological skills or overseas work exposure. In 2019, we provided 1,446 training sessions.

Two in-house monthly training programs, the Supervisory Development Program and Managerial Development Program, are core to improve our staff's leadership and people management skills.

Our Future Leaders Development Program for the middle-management level strengthens participants' innovative and entrepreneurial thinking.

The Company also offers fresh graduates opportunities to build their career in the fast-paced technology sector through a well-structured Graduate Trainee Program. We recruit graduates from the engineering, IT, customer service, sales, marketing, and media disciplines. In 2019, we hired 230 graduate trainees with a male-to-female ratio of 1.37:1.

### Collaborations with Hong Kong Universities through Internship Opportunities

PCCW Solutions partner with different universities in Hong Kong to offer students work experience through internship placements in digital business environments. Last year, we worked with the PolyU School of Professional Education and Executive Development (SPEED) Work-Integrated Education (WIE) Placement Scholarship Program and the Hong Kong Polytechnic University to help students transfer skills acquired in the classroom to the workplace.

We were honoured to be the work-based project internship partner for the Open University of Hong Kong's Digital Business bachelor degree. The program provides high-quality education in various aspects of digital business for those who wish to pursue their careers as analysts or managers in digital business environments.



### Talent attraction and retention

The Group has established a performance appraisal system and incentive bonus schemes to motivate and reward employees. Different BUs also offer incentive trips to those who have demonstrated outstanding performance.

### Turnover rate<sup>2</sup>



OUR PEOPLE

## 2.4 Diversity and Inclusiveness

We advocate a culture of diversity and inclusion within the business. In 2019, we signed the Racial Diversity and Inclusion Charter for Employers under the Equal Opportunities Commission.

The Group continues to expand its global presence, and our workforce now comprises employees of 65 nationalities with a diverse range of expertise and background.

We also encourage and support women to take on leadership roles at PCCW. Around 30% of our leadership roles are currently filled by female colleagues.



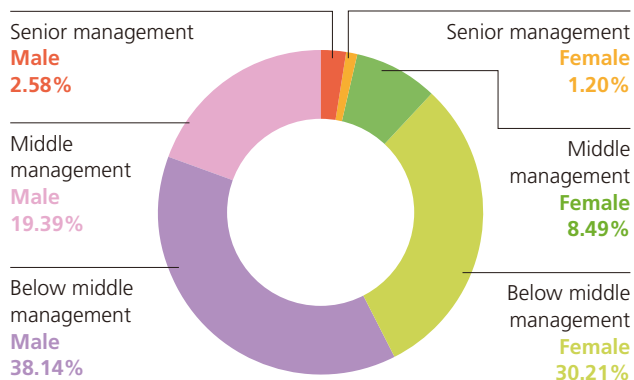
23,916 staff from

65 nationalities

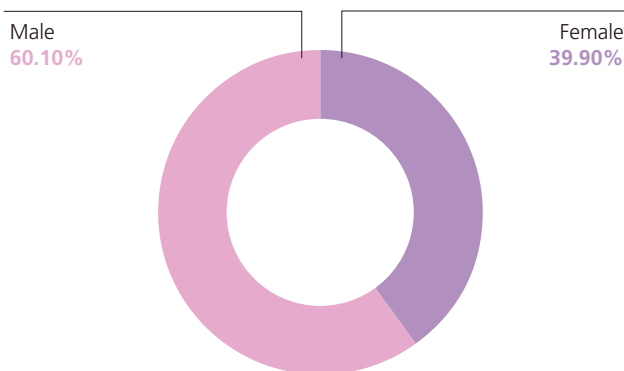
<sup>2</sup> Turnover rate covers voluntary leavers only.



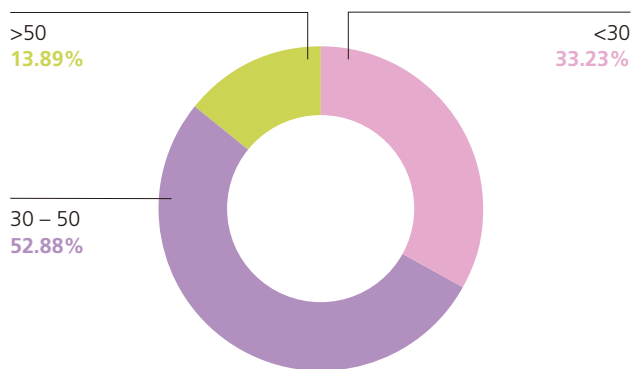
### Total employees by employment category



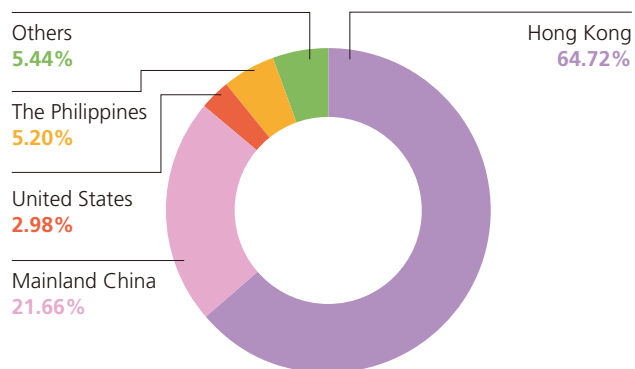
### Total number of workforce by gender



### Total number of workforce by age group



### Total number of workforce by geographical location



We are committed to providing equal opportunities for all employees. For all employment aspects, including remuneration, recruitment, training and promotion, we prohibit all forms of discrimination based on gender, age, family status, sexual orientation, disability, race and religion. As of end of 2019, there were 37 people with disability working at PCCW.

### Appreciation for Female Colleagues

On the occasion of International Women's Day on March 8, the Group expressed gratitude to its 6,000 female employees by distributing red dates tea bags in different offices.

The tea bags were produced by the Hong Kong Young Women's Christian Association (HKYWCA) "ChariTea" program. All the proceeds of tea bag sales would be used to support HKYWCA's self-financed services that prevent sexual violence against women.



### 3. OUR ENVIRONMENT

PCCW has made continuous efforts to build a more sustainable business and help address the threat of climate change. We have adopted a wide range of mitigation and adaptation measures on energy saving, waste management, sustainable use of resources and green Information and Communications Technology (ICT) solutions to help achieving a low-carbon economy.

We conduct our businesses in accordance with the applicable environmental laws and regulations. These include the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598), the Product Eco-responsibility Ordinance (Cap. 603), the Product Eco-responsibility (Regulated Electrical Equipment) Regulation (Cap. 603B), and the Buildings Energy Efficiency Ordinance (Cap. 610). We have also established internal standards such as the Energy and Water Management Policy and Guidelines, Gas Emission Reduction Policy, and recycling procedures and programs.

#### Objectives

- Minimize energy consumption and Greenhouse Gas (GHG) emissions
- Promote responsible waste management
- Help employees and customers become more environment-friendly

#### Measures

- Modernize data centers, exchange buildings, equipment and infrastructure
- Upgrade and electrify our fleet
- Promote recycling
- Develop green ICT solutions to optimize and reduce resource consumption



#### Environmental performance highlights:

Total GHG emissions:

244,293  
tonnes CO<sub>2</sub>-e  
(↓ 2.41%)



Electricity consumption:

383,144,892  
kWh  
(↓ 1.91%)



Shopping bags:

15.97  
tonnes  
(↓ 21.41%)



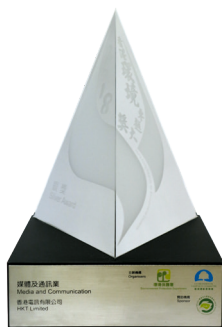
General waste disposal:

849.25  
tonnes  
(↓ 1.31%)



In 2019, HKT won the following accolades in recognition of our ongoing sustainability efforts:

- The Silver Award in the media and communication sector at the Hong Kong Awards for Environmental Excellence
- The Certificate of Excellence at the Hong Kong Management Association's Hong Kong Sustainability Award 2018/19
- Hong Kong Green Organisation certified by Environmental Campaign Committee

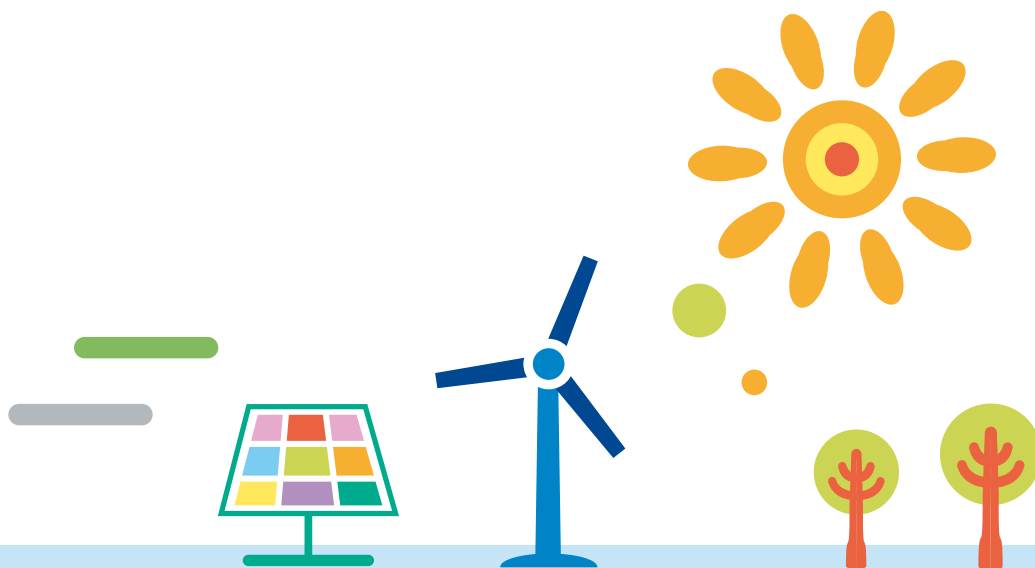


### 3.1 Climate Change and GHG Emissions

Our business operations and ICT services could be significantly affected by climate change. While an increase in temperature will lead to higher electricity consumption, extreme weather events can possibly result in financial loss and cause physical damage to facilities such as submarine cables. PCCW recognizes the need to reduce carbon footprint as well as improve energy efficiency in our business to help mitigate climate change. Our Environmental Advisory Group meets regularly and provides suggestions on our sustainability agenda.

We have been providing our carbon emissions data to the Carbon Footprint Repository for Listed Companies in Hong Kong since the repository was started in 2014. The Repository is a voluntary environmental reporting platform launched by the Environmental Protection Department, which encourages listed companies to disclose GHG emissions and the carbon reduction measures implemented.

We have also been following measures in accordance with the Montreal Protocol to phase out ozone-depleting hydrochlorofluorocarbons (HCFCs), as these pollutants can contribute substantially to global warming. All newly purchased air-conditioning systems use eco-friendly refrigerants.



### Improving energy efficiency

The facilities that consume the most energy are our infrastructure, data centers, exchange buildings, telecom and IT equipment, and offices. We have set a policy for optimal temperature environments between 24°C and 26°C at offices, buildings and general facilities. We also review our exchange buildings' management systems and energy consumption quarterly, and minimize electricity consumption by upgrading equipment and facilities.

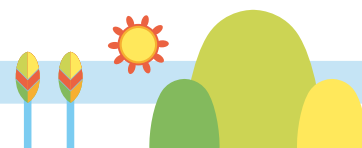
We have adopted the following measures:

- Phase out old legacy equipment by using new systems with improved energy efficiency
- Replace fluorescent tubes with LED lights
- Install LED lights at new premises
- Replace air-cooled chiller with water-cooled type, or using evaporative cooler
- Review and adjust the operating control of chiller systems
- Modernization of lifts
- Switch off non-essential display monitors in the 24-hour operation center
- Shorten the operating hours of air conditioners for some offices
- Consolidate duty staff to centralized working areas on Saturdays and public holidays

PCCW Solutions data centers are designed and maintained to the highest level of environmental standards. All power supplies including Uninterruptible Power Supply, air-conditioning systems, backup generators and other electrical and mechanical signaling services for our facilities have adopted the most advanced environmentally friendly technologies and measures. Our efforts in the data center have earned us the Leadership in Energy and Environmental Design (LEED) Platinum accreditation and ISO 14001:2015 certification for Environmental Management System. A new data center built in 2019 is equipped with modular cooling infrastructure and busway power distribution systems to optimize overall energy efficiency.



PCCW Media has upgraded its servers to more energy efficient ones which can minimize power consumption and take up less physical space while providing more storage capacity.



We are a signatory to the Charter on External Lighting launched in 2016, and have received the Platinum Award for three consecutive years for switching off our external lighting from 11 p.m. to 7 a.m. every day. We have also signed the Energy Saving Charter and pledged to adopt energy-saving practices in our exchange buildings, and the shops of csl, 1010 and HKT.



With our concerted efforts, we were able to bring down the Group's electricity consumption by more than 7.4GWh in 2019.

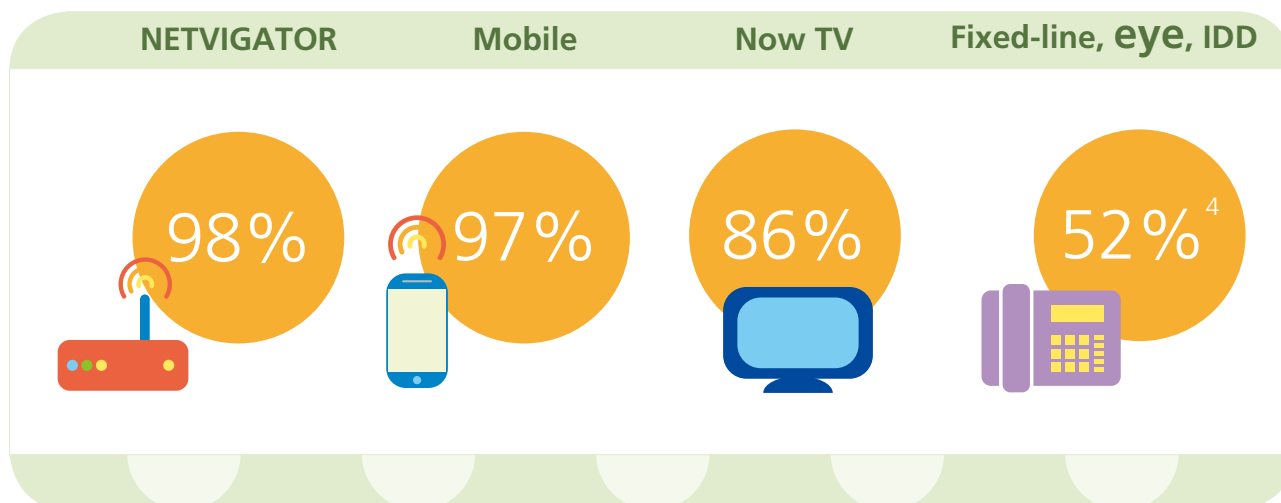
We also strive to minimize our carbon footprint by replacing old vehicles with eco-friendly and energy-efficient models. In 2019, we further replaced some vehicles with 25 fuel-engine-type of Euro 5 & 6 vehicles and three electric cars, with potential reduction of a total 10.6 tonnes of CO<sub>2</sub> emissions per year. We plan to phase out a further 19 vehicles, which account for some 8% of our fleet, in the next three years.

### 3.2 Sustainable Use of Resources

We strive to be a good steward of natural resources and adopt green operations practices whenever possible.

#### Paper use

We have made determined efforts to promote digitalization. By encouraging customers<sup>3</sup> to accept electronic bills for our various services, we saved over 48 million sheets of paper in 2019. The percentage of customers using e-billing are shown as below:



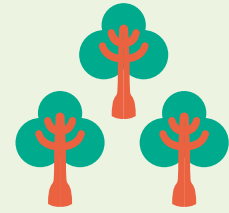
<sup>3</sup> This refers to consumer customers.

<sup>4</sup> E-bill service was first offered to fixed-line, eye and IDD customers in November 2016. The percentage of customers opting for e-bill has increased from about 30% in 2017 to 52% in 2019.



In 2019, the Group stopped publishing the hard copies of Yellow Pages and White Pages Business telephone directories that had served Hong Kong citizens for more than 60 years. Customers are encouraged to visit the website “Yellow Pages” and the mobile application “yp1083” to access a comprehensive business telephone directory. We are able to save over 19 million sheets of paper per year.

Amount of paper saved<sup>5</sup> per year equivalent to 8,171 trees saved



Our retail shops of csl, 1010 and HKT only provide customers with paper shopping bags upon request. This helped reduce 21% of shopping bags consumption last year.

As copy paper is a major source of paper consumption in the Group, we started adopting the paper certified under the Programme for the Endorsement of Forest Certification (PEFC) as copy paper and paper for bill printing on a group basis in 2019.

### Waste management

Our approach to waste management follows the key principle of waste hierarchy, including reuse, recycling, reprocessing and responsible waste disposal. We evaluate recycling programs and activities on a regular basis. In our telephone exchange buildings and offices, we use waste water from water-cooled condensers as flushing water.

A waste audit was conducted at the Group’s headquarters during the year to identify enhancement measures. Waste papers and plastics were the most commonly found refuse. In view of that, colleagues have been reminded to dispose of those recyclables properly in the recycling bins in the pantries.

We have adopted various initiatives to ensure a proper waste disposal process. Hazardous waste such as fluorescent tubes, industrial batteries, waste electrical and electronic equipment (WEEE) and general office batteries are handled by approved chemical waste collectors and specialist contractors, while non-hazardous waste are handled by professional cleaning service providers and contractors in compliance with local regulations. The two main types of non-hazardous waste include general office waste and construction waste from the renovation of our retail outlets. Furniture is reused whenever possible during our office and shop relocation and renovation to minimize waste production.

In 2019, we began a trial with Hong Kong Battery Recycling Centre (HKBR) to recycle waste lead acid batteries. HKBR is the first facility in Hong Kong that is licenced to recycle waste lead acid batteries locally.

### E-waste management

Aligning with the Government’s Producer Responsibility Scheme on waste electrical and electronic equipment, we help arrange removal services for customers when they purchase regulated electrical equipment. The collected waste equipment is sent to recyclers for proper treatment to achieve resources recovery. In 2019, we helped customers to remove over 2,500 pieces of WEEE.

During the year, we also collected 6,837 old mobile handsets from customers for recycling.

<sup>5</sup> Saving from e-billing and cessation of publication of Yellow Pages and White Pages Business telephone directories.

## Recycling and reuse

We are devoted to increasing the recycling rate of waste materials by conducting various recycling programs. These materials include toner and ink cartridges, scrap materials, copper, iron and steel, mobile phones and accessories, and paper. We complement our recycling efforts by donating obsolete IT products such as computers and printers to charitable organizations.

Recycled items	2017	2018	2019	Change (2019 vs 2018)
Toner and ink cartridges (pieces)	1,983	1,762	1,808	↑ 2.61 %
Scrap materials				
• Sim cards <sup>6</sup> (pieces)	2,858,640	729,913	N/A	N/A
• Other materials (pieces)	554,748	300,201	230,145	↓ 23.34 %
Copper (tonnes)	18.68	15.57	18.67	↑ 19.91 %
Iron and steel (tonnes)	7.76	7.37	7.71	↑ 4.61 %
Paper (tonnes)	145.45	156.02	129.53	↓ 16.98 %

In 2019, we received the “Friends of EcoPark” Award for our contributions to waste recycling and recovery.



## 3.3 Green ICT Solutions

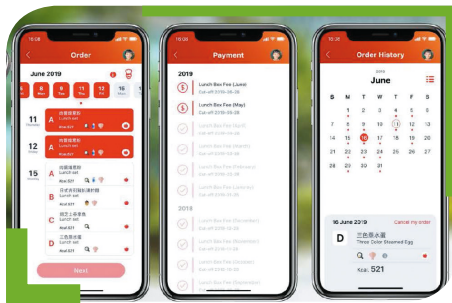
We combine green elements in our products and services to help our consumer and corporate customers attain eco-friendly lifestyles and business solutions.

Smart Charge is an electric vehicle (EV) charging service for users in residential, commercial and industrial areas with the vision of “Live green and go green”. In the past year, we expanded our EV-charging-readied networks rapidly, completing over 40 residential and commercial projects. In the long run, Smart Charge will integrate the latest technology in the service to further enhance customers’ EV charging experience and popularize the use of EVs.



<sup>6</sup> In 2017 and 2018, the Group disposed of large quantities of outdated SIM cards for recycling, which contributed to the large number reported. No such exercise was conducted in 2019.

HKT Smart Living utilizes advanced technologies to enable customers to automate and control their home or workspace ambience, entertainment and security systems via mobile applications. Smart Living energy management system helps users to enhance energy efficiency of their home devices through regular monitoring and controlling.



HKT Merchant Services has launched a one-stop lunchbox ordering application for schools. Parents can view the meal choice of their children, complete the order form and pay online. This solution helps to reduce a considerable amount of paper and minimize the administrative procedures involved for parents, catering companies as well as schools.



We showcased our latest development of a smart recycling machine for plastic bottles in the 5G Tech Carnival. This machine serves to address the increasing concerns over plastic pollution and the extremely low plastic recycling rate due to high operation costs. Unlike other traditional recycling machines, it functions as street furniture in the city to promote and improve smart-material recycling, and provides interactive information services, news, and environmental data. For more information on the 5G Tech Carnival, please refer to the "Our Customers" chapter.

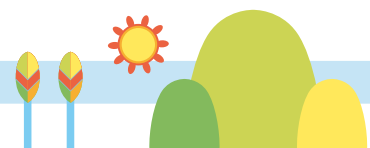
### 3.4 Employee Environmental Awareness

We raise employees' environmental awareness through staff communications and by encouraging them to participate in green activities.



In 2019, all our canteens replaced plastic stirrers with wooden ones to reduce the consumption of single-use plastics. In order to reduce food waste, we have implemented a scheme called "Less Rice for \$1 Less" in one of our canteens on a trial basis.

PCCW has signed the Food Grace "Green Mid-Autumn Festival Food Saving Pledge" since 2018, encouraging our colleagues to send mooncakes as gifts only when necessary. In addition, we collected surplus mooncakes for the needy, especially low-income families and elderly persons living alone, sharing the festive joy and blessings with them.





We continued to support WWF Earth Hour by switching off signage lighting in 13 office buildings, exchanges and shops for one hour on March 30.

Our Environmental Protection Volunteer Group was established more than 20 years ago. In 2019, over 240 volunteers participated in nine environmental programs in partnership with six charity and social service groups. For highlights on these programs, please refer to the “Our Community” chapter.

In addition, we partnered with green organizations such as The Green Earth and Food Grace to organize various workshops to promote the concepts of green living among our colleagues.

Effective communication channels are important to spread the messages of environmental protection to our employees. We share green tips and latest environmental initiatives in the Green Matters column in our staff internal newsletter. We have also created a dedicated email account to collect comments and suggestions from colleagues for further improvement.



## 4. OUR COMMUNITY

PCCW is committed to creating a positive social impact in our community through various community service initiatives that serve specific objectives. We continue to identify and support social causes and create social value through education, corporate volunteering, financial donations and in-kind contributions.

### Objectives

- Support vulnerable and underprivileged groups
- Digital empowerment
- Leverage technology to improve quality of life

### Measures

- Corporate volunteering in community service projects
- Telecom services sponsorships
- Programs and workshops for youths and the elderly
- Initiatives to support smart city evolution



Guided by the Group's CSR policy, our primary focus is to equip students and youth with skills and resources to excel in the digital age, while connecting elderly members of the community with technologies that promote active and smart aging. We partner with charitable organizations, offering our resources and ICT expertise to empower underprivileged groups and develop a more inclusive society.



### Our work in the community:



Cumulative number of volunteers since 1995

**5,544**



Special community service programs in 2019

**14**



Active volunteers in 2019

**619**



Volunteer leave days granted in 2019

**432**



Volunteer hours in 2019

**20,105**



Number of partnering NGOs and academic institutes in 2019

**110+**



Ongoing community service programs in 2019

**27**



Monetary donations and in-kind sponsorships for charitable causes in 2019

**HK\$21M+**



## 4.1 Community Engagement

Our Corporate Volunteer Team, comprised of our employees, their family members and company retirees, has had a positive impact in the community for the past 24 years. They contributed over 20,000 hours of service in 2019.

PCCW recognizes the valuable contributions of our staff volunteers via the annual Volunteer Award Ceremony. Our Volunteer Appreciation Scheme encourages employees to participate in community services by granting up to two days of volunteer leave annually.



In 2019, our Corporate Volunteer Team earned several accolades:

- The Social Welfare Department's Steering Committee on Promotion of Volunteer Service once again presented us the Award of 10,000 Hours for Volunteer Service. The team also won the Merit of Highest Service Hour Award 2018 (Private Organizations – Category 1).
- We took home the Merit Award in the Hong Kong Corporate Citizenship Program's volunteer team category. The Program was organized by the Hong Kong Productivity Council and the Committee on the Promotion of Civic Education.
- PCCW earned the 15 Years Plus Caring Company Logo from the Hong Kong Council of Social Service's Caring Company Scheme, in recognition of our having been a caring company for over 15 years.

### Philanthropic sponsorship

We sponsored and donated to charities and other organizations which align with our community services initiatives.

In 2019, the Group made over HK\$21 million in monetary donations and in-kind sponsorships including hardware and communications services. These included:

- Sponsorship to the 2019 Youth IT Exchange Tour
- Telephone hotlines support for the fundraising TV shows of the Tung Wah Group of Hospitals, Yan Oi Tong, and Yan Chai Hospital
- Scholarships and bursaries to local university students
- Sponsorship to the consultation services hotlines for The Samaritan Befrienders Hong Kong, Hok Yau Club, Hong Kong Children & Youth Services, Hong Kong Sheng Kung Hui and Tai Hang Youth Centre
- Sponsorship to the 2019 UOB Heartbeat Run/Walk to raise funds for Children's Cancer Foundation
- Club Sim as the Silver Sponsor for the Run & Glow charity run to promote positive attitudes to life and educate the public about psoriasis
- Telecom support for Books for Love, an annual fundraising event that aims to pass on the joy of reading
- Sponsorship to the 2019 Hong Kong Outstanding Youth Volunteers Scheme, organized by the Social Welfare Department's Steering Committee on Promotion of Volunteer Service
- Telecom support for NGOs including Cheshire Home (a residential home for the disabled) and a pediatric ward at Princess Margaret Hospital
- Sponsorship to the Hong Kong Cycling Team
- Sponsorship of the Hong Kong News-Expo which showcases the history and development of Hong Kong's news media

## Youth IT Exchange Tour

The Group supported the Hong Kong Computer Society and the China Computer Federation Guangzhou, co-organizing a four-day youth IT tour in July. The tour promoted interaction between university students in Hong Kong and Guangzhou, helping them to explore opportunities in the Greater Bay Area IT industry.

Forty people including 19 freshmen from local universities and other university students from Guangzhou visited famous IT universities and organizations to learn about the Chinese IT industry. This tour provided a valuable experience for students to exchange ideas in IT, particularly for those who are interested in working in the Greater Bay Area.



## Community service highlights in 2019

We serve various beneficiaries including the elderly, students and youth, children, people with disabilities and other groups. We collaborate with community partners including the Government, NGOs, academic institutions, and other businesses to create social values for our community. In 2019, the Corporate Volunteer Team ran 41 ongoing and special programs, mostly in partnership with charitable organizations and social services groups.

### The elderly

- We provided VR and smartphone workshops to senior citizens.
- A record number of nearly 300 volunteers participated in a Mid-Autumn Festival visit and brought mooncakes, rice and noodles to 314 elderly residents at Choi Hung Estate.



## HKT Elderly Hotline

HKT cares for the communication needs of senior citizens. We strive to connect them with technologies that improve quality of life and narrow the digital divide for them.

In 2019, HKT set up a one-stop hotline for senior citizens aged 65 or above. It offers them timely technical support, helps with contracts and bills, service relocation, and special offers for home phone, broadband and mobile services. Special concessions are available for eligible applicants from low-income families.

Elderly offers	Jointly launched with	Details
<ul style="list-style-type: none"> <li>Care for the Elderly Line</li> </ul>	The Hong Kong Council of Social Service (HKCSS)	Offers free fixed line services for Hong Kong citizens aged over 60 years old
<ul style="list-style-type: none"> <li>Broadband Service Concession Scheme for the Elderly</li> </ul>	WebOrganic of HKCSS	Provides affordable broadband service to eligible elderly people from low-income families
<ul style="list-style-type: none"> <li>Smart Pama Mobile Phone Data Plan</li> <li>Safety Phone Service Plan</li> <li>Caring for the Elderly Service Plan</li> </ul>	csI	Offers mobile services at discounted prices



Hotline  
2833 6565





### Donation of iPad to the Christian Family Service Centre

During the reporting year, csl donated 30 iPads to the Active Ageing Services program of the Christian Family Service Centre for retirees and the elderly.

The elderly centre used the iPads for various activities including cognitive training for elderly dementia sufferers, playing games during home visits, teaching them to monitor and record health data, and online searches for information such as medications, health or home repair.



### Students and youth

- The Group supported the Commission on Poverty's Life Buddies mentoring scheme to provide out-of-classroom learning experiences for secondary school students.
- Volunteers acted as mentors to secondary school students under the Child Development Fund – Teen's Dream Mentorship Project of the Tung Wah Group of Hospitals Tuen Mun Integrated Services Centre.
- The Group supported Run for Wellness, organized by The Hong Kong Federation of Youth Groups to raise public awareness of emotional health for young people.
- We offered free smart home computer coding and digital short film workshops to 200 female secondary school students from underprivileged families as part of The Women's Foundation's Girls Go Tech Program.



### Intergeneration VR CSR Program

Between August and October 2019, HKT Education and eSmartHealth jointly organized the second intergenerational project to strengthen communications between young people and the elderly using virtual reality (VR) technology.

Students created VR videos of famous attractions in Hong Kong under the theme "The 18 districts in the eyes of the elderly". These allowed seniors with limited mobility to connect with the community again through immersive and interactive VR experiences.

A total of 360 people benefited from the VR program including 90 students from 18 secondary schools and 270 elderly from 18 elderly service organizations. The total service hours exceeded 750 hours.

Moreover, our Volunteer IT team also brought VR experience to another 15 elderly service organizations, contributing an additional 350 volunteer service hours.



### Nurture Young Talents for Smart City Development

HKT Education cooperated with the University of Hong Kong to organize a summer camp for 63 secondary school students, titled Artificial Intelligence (AI) x Internet of Things (IoT) x 5G, in August 2019.

Students visited HKT's exchange, smart charge facilities, the IoT development home lab, and ViuTV's studios and broadcasting center. Workshops with HKT's technology experts complemented innovative group projects that gave students practical experience, culminating in student presentations showcasing new product ideas and possible applications.

The summer camp gave students a valuable interactive learning experience outside the classroom, preparing them for vibrant future careers.



### Children

- We arranged a charity sale to support children with learning difficulties, development delay and autism at the Child Development Centre. Hundreds of toys, books and electronic products were donated by colleagues.
- We supported the Children's Heart Foundation via a charity balloon sale at the PCCW-HKT annual dinner.

### People with disabilities

- Volunteers taught the severely disabled residents at the Cheshire Home in Sha Tin to use computers and the Internet.
- Our staff volunteered at the Salvation Army – Lai King Home to help a group of mentally impaired people to integrate into the community.

#### Phone Calls Made Possible for the Hearing Impaired

In September, csl partnered with Italian social enterprise Pedius to launch a smartphone app enabling the hearing impaired to make "phone calls".

Speech recognition and voice synthesis tools translate users' text messages into speech immediately and verbal responses into text. There are approximately 150,000 people with hearing difficulties in Hong Kong and this innovative technology contributes to social inclusion.



### Environmental protection

- We partnered with The Green Earth to support recycling of plastics, metals and collection of food waste from the contestants and the public during the Race for Water trail-running race.
- We supported the Business Environment Council's Green Delight in Estates program to raise environmental awareness among public rental housing residents.
- We participated in The Conservancy Association's Autumn Tree Monitoring and Caring Day on weed removal.





## Green Week

PCCW Media Group organized a “Green Week” in September 2019. Activities included a movie screening on the issue of plastic pollution and an upcycling workshop by Jane Goodall Institute Hong Kong, an environmental NGO. During the workshop, our staff reused plastic bottles to create DIY planters.



## Others

- PCCW supported and donated to the Hong Kong Cancer Fund's Dress Pink Day to increase awareness of breast cancer and raise funds for cancer care services.
- The Group supported Oxfam's Rice Event 2019 at three of our staff canteens to raise funds for the smallholder farmers.
- We helped the Christian Family Service Centre sell its rehab charity ticket to raise funds for services for chronic diseases, mental health and people with disabilities.
- The Group supported Suits for Success by collecting new or lightly-used work clothing from colleagues for disadvantaged people entering the workforce for the first time.



- The Club encourages members to donate or redeem charity products by using accumulated Clubpoints. In 2019, more than 1,800 members made approximately HK\$240,000 in monetary donations and HK\$43,000 in product donations to nine charity partners.
- We have continued to provide scholarships and bursaries to six local universities to support students of computer science, IT and related disciplines.
- HKT is collaborating with Hong Kong Council of Social Service to replace the analogue TV with digital TV for low-income and elderly households under the Community Care Fund Digital Television Assistance Programme.
- ViuTV staff and artistes participated in Hong Kong & Kowloon Walk for Millions 2018/2019 to raise fund for The Community Chest of Hong Kong.



## 4.2 Digital Empowerment

PCCW is committed to using our expertise in digital technologies to improve our city. In September, HKT was awarded the status of a Designated Local Research Institution (DLRI) by the Hong Kong Government's Innovation and Technology Commission. Research and development (R&D) projects in different areas such as smart city initiatives, cloud applications, big data analytics and AI initiatives, cybersecurity initiatives, and mobile network innovations are carried out in our R&D laboratories.

### Support STEM education

We collaborate with different stakeholders to encourage STEM education among the younger generation.

#### Renovation Classroom Projects with Schools

HKT Education provides one-stop STEM and e-learning solutions for schools and students. We work with professional interior designers to help schools construct new learning and teaching environments like the co-learning space.

In 2019, our team helped The Yuen Yuen Institute MFBM Nei Ming Chan Lui Chung Tak Memorial College transform its multi-purpose room into a STEM maker space, with configurations that greatly facilitate group discussions among students and various class activities.

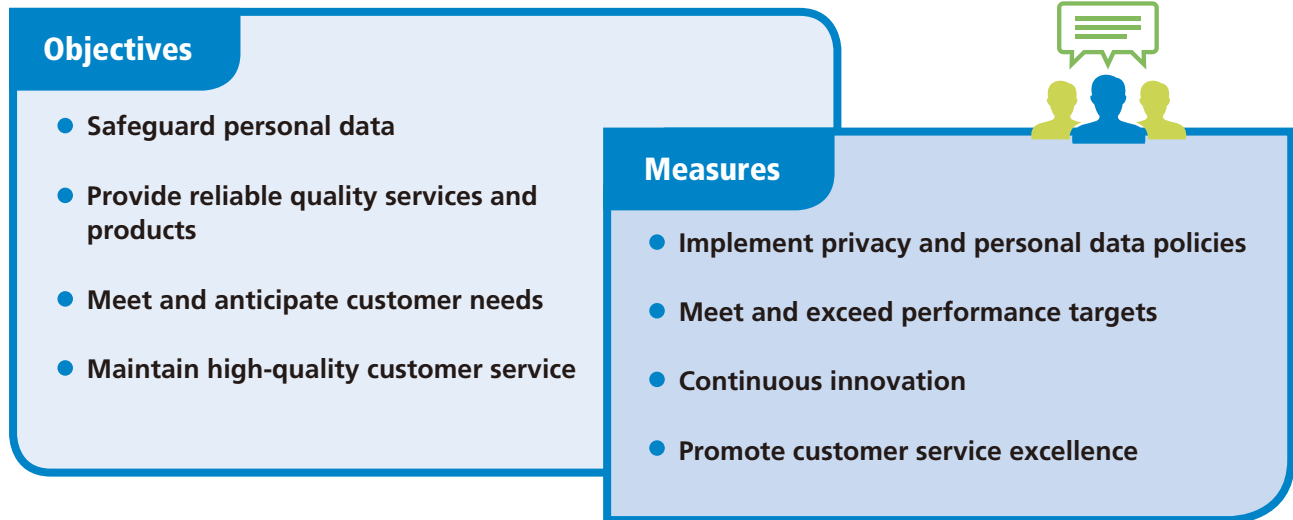
We also collaborated with STFA Leung Kit Wah Primary School to transform its computer room into a STEM learning center. Classrooms were equipped with moveable tables and chairs so that teachers can change the settings according to teaching needs.

HKT Education gave advice during the construction phase and helped procure equipment including 3D printers, 3D pens, and robotic toys.



## 5. OUR CUSTOMERS

PCCW strives to build a long-term relationship with customers by delivering excellent customer experience and high-quality products and services, including fixed-line, broadband, mobile communication and other innovative service offerings. In addition, we are committed to empowering customers to make informed decisions based on accurate and transparent information of our products and services.



We have in place stringent internal policies on customer privacy, labelling and advertising. We regularly monitor relevant new laws and regulations so that we can communicate them timely to the responsible operational units.

During the reporting period, there were no non-compliance cases regarding relevant laws and regulations, including but not limited to the Personal Data (Privacy) Ordinance (Cap. 486), the Telecommunications Ordinance (Cap. 106) and license conditions and code of practice issued by the Office of the Communications Authority (OFCA).

### 5.1 Customer Data Privacy and Security

Customer Data Privacy and Protection as well as Information Security and Management were ranked as the top two material topics on our materiality review. In response to privacy concerns, legal requirements and stakeholder expectations, we have strengthened our internal policies, procedures and compliance guidelines that govern how we collect, use and manage customer information. These policies and guidelines affirm our commitment to ensure customer data security by clearly defining the roles and responsibilities of our staff in the usage of personal data as well as incorporating an appropriate level of security measures into the design to achieve confidentiality, integrity and accountability. In 2019, there was no known issue of non-compliance in this area.



Certain BUs or functions have attained ISO 27001 accreditation for their information security management systems, enabling us to align our data security practices in accordance with international standards. We have also incorporated a session on data security measures in our new staff orientation and regular training to ensure our employees are aware of the situation.

In 2019, the Group set up a Group Information and Cyber Security Council (GICSC) to oversee all cybersecurity-related initiatives, investments and ongoing maintenance pertaining to the protection of the Group's core network, servers and endpoints. Any matter requiring escalation will be reported directly to top management.





### Information security and management

To help identifying and managing emerging risks, PCCW's management assesses the implications of our business strategy, new technologies, customer concerns and relevant industry developments, while the Group Information and Cyber Security Office (GICSO) performs review on the overall cybersecurity risk profile. We respond to identified privacy challenges by enhancing our policies and investing in new capabilities and technologies timely. Data Protection Impact Analysis (DPIA) is conducted before entering into any new country or introducing any new product or service. The DPIA results help us identify the data privacy risks existed in the business process, which enables the Group to assess and implement the corresponding risk mitigating controls, while ensuring compliance with all data-protection obligations.

During the year, PCCW upgraded its corporate VPN and anti-virus software, restricted access to unmanaged cloud storage and reviewed the internal customer data-handling process to further enhance data security and avoid data leakage throughout our operations. We also deployed next-generation endpoint protection and network behavior tools to further strengthen our overall security measures and update IT Security Policy by benchmarking it against the latest technology trends and regulatory requirements.

Threat intelligence exchange and advanced threat defence infrastructure are also in place to enhance cybersecurity. The GICSO has been tasked to monitor suspicious traffics and activities to combat cyberattacks.

### Cybersecurity measures for customers

For our broadband customers, we introduced in 2019 a new cybersecurity service, NETVIGATOR SHIELD, which protects IoT devices against phishing, malicious sites and potential botnet connections. Our network engineering team will also closely monitor cybersecurity events and take necessary responsive actions.

To raise customer awareness on cybersecurity, HKT provides NETVIGATOR customers with regular updates on identifying suspicious contents and activities via the Safe Internet Tips and Customer News channels. We regularly post updates on our NETVIGATOR and customer service Facebook pages to alert customers to the latest cyberattacks, potential scams or phishing activities. We also post messages to raise customer awareness of phone scams and remind them to contact us if they receive any suspicious phone calls claiming to be from HKT.

## 5.2 Reliable and Responsible Services and Products

PCCW implements systematic and stringent procedures to ensure the services and products that we offer to customers are safe, well-tested and reliable. We have designated teams specializing in the development and management of customer services and products. We also endeavor to ensure compliance with the OFCA requirement at all times.

Our service and product quality processes are accredited for a number of international certificates, including ISO 9001:2015 (Quality management systems); ISO 20000 (IT service management); ISO 27001 (Information security management) and TL 9000 (Quality management system for the telecommunications industry) for fixed voice, broadband, data and wireless services; ISO 27017 (Code of practice for information security controls for cloud services) and ISO 27018 (Code of practice for protection of personally identifiable information (PII) in public clouds for cloud services).

PCCW Solutions aims to provide a stable, reliable and high performing data center network to customers. Our MCX10 Data Center in Kwai Chung is Uptime Institute-certified. The core infrastructure of our data centers provides full resilience for Internet connectivity via Data Center Interconnection (DCI) network. The DCI network is made up of fiber connections distributed in multiple locations across Hong Kong. Our de-centralized network ensures that our data centers have back up in case of incidents. Moreover, our data centers are equipped with up-to-date Distributed Denial-of-Service (DDoS) mitigation system to protect our customers against DDoS attack, a very common cyber security threat.





These quality and information management systems provide international best practices across various functional units, including fixed and wireless network planning and operation, cloud application and development, and field services and project management.

We have established corresponding performance indicators to help us monitor the standard of services and products delivered to customers.

	Performance target	Actual performance in 2019
<b>CSL</b>		
Network reliability <sup>7</sup>	99%	100%
Service restoration <sup>8</sup>	< 60 minutes	100%
<b>NETVIGATOR</b>		
Network stability <sup>9</sup>	99.99%	99.995%
Service restoration <sup>10</sup>	99%	99.93%

Maintaining product and service quality requires a professional team. In 2019, 2,777 technical staff in our engineering team received 57,983 hours of internal and external trainings to help them keep up with industry trends.

We also encourage our employees to obtain professional certification and accreditation in various technological fields. At the end of 2019, our engineers hold 2,202 professional certificates and institutional memberships.

### Service accessibility

PCCW endeavors to promote inclusion and empowerment by extending the availability of its services to different groups.

Our Fiber-to-the-Home (FTTH) already covered 88% of all households in Hong Kong by the end of 2019. We have already installed fiber in over 600 remote rural villages to provide reliable broadband services. We support the Government's initiative to extend fibre-based networks to villages in remote areas and continue to look for opportunities to extend our broadband coverage to make our services more accessible.

HKT possesses the largest amount of mobile radio spectrum in Hong Kong to provide reliable and extensive wireless telecommunication services. Our network covers more than 3,000 sites, and running along all transportation tunnels and railway lines. Both indoor and outdoor areas in major universities are covered.

We also offer 23,931 Wi-Fi hotspots in Hong Kong at various locations, including convenience stores, restaurants, MTR stations and public phone kiosks.



FTTH coverage

**88%**



Number of Wi-Fi hotspots in Hong Kong

**23,931**

<sup>7</sup> Availability of the core network or core network uptime in a set observation period.

<sup>8</sup> Mean time for recovering a fault in the core network following its discovery and identification.

<sup>9</sup> Availability of broadband network.

<sup>10</sup> Provide restoration of services for customers within two calendar days.

PCCW keeps in mind the special needs of the vulnerable groups in society and strives to develop products and services that can benefit the needy. Barrier-free facilities such as portable ramps, among other accessibility measures, are provided in shops for the convenience of the disabled.

We have introduced a designated HKT Elderly Hotline to cater for the communication needs of seniors and offer affordable broadband service to students from low-income families through partnership with a social enterprise WebOrganic.

### Smart Home for Seniors Pilot Program

Last year, HKT supported the Senior Citizen Home Safety Association (SCHSA) in launching the Smart Home for Seniors Pilot Program that integrate smart home technology in home-based elderly care.

The Pilot Program utilizes HKT's broadband and smart home technologies to minimize common domestic accidents, e.g. fall in wet bathroom or fire from unattended cooking. Smart Home IoT sensors are installed to monitor the home environment and eHealth Solution keeps track of the health condition of the elderly.

The Pilot Program combines HKT's technologies and the experience of SCHSA to empower the elderly to age more independently, safely and smartly.



### Virtual Banking in Hong Kong

In 2019, a joint venture comprising PCCW, HKT and other partners was granted a license to launch a new virtual bank in Hong Kong.

The virtual bank will provide a seamless and secure digital platform for customers to manage their financial matters, and will help promote financial inclusion. The joint venture targets to introduce the service in the first half of 2020.



### Planning for tomorrow's need

At PCCW, we embrace technological advancement and plan for future evolution.

HKT successfully acquired a total of 120 MHz of 5G spectrum in the 3.3 GHz, 3.5 GHz and 4.9 GHz bands in 2019, allowing us to provide a quality 5G mobile communications service outdoors and in heavily loaded indoor environments. Our 5G service is expected to be launched in the second quarter of 2020.

We will continue to monitor electro-magnetic field (EMF) emittance from our facilities to ensure that we are in compliance with the relevant standards. We also require our suppliers to strictly comply with the relevant standards. According to World Health Organization reviews, based on current evidence, EMF exposure limits within the recommendations of the International Commission on Non-ionizing Radiation Protection, a non-governmental organization setting standards for EMF, does not appear to have any known consequence on health.

In December 2019, the Ultra Express Link (UEL), a 2.76km high-count submarine cable, the first-of-its-kind in the world, was officially launched. The UEL connects data centers in Tseung Kwan O Industrial Estate and Chai Wan. It will meet the rising demand for high-speed and high-capacity connectivity requirements from data center operators and facilitate the development of Hong Kong to become one of Asia's data center hubs.

### HKT 5G Tech Carnival

The HKT 5G Tech Carnival was held from June 13 to 16 at the Kai Tak Cruise Terminal to provide insights on the upcoming application and future possibilities of 5G and other emerging technologies. The carnival aimed at showcasing how 5G and smart city solutions from HKT would enable people to lead smarter, safer and healthier lifestyles in Hong Kong.

The Carnival's exhibition zone was divided into seven core themes including 5G & smart city, enterprise solutions, FinTech, global network, revolutionized ecosystem, mobile solutions and smart living. We also set up interactive zones for first-person experience for visitors. Conference and panel discussion sessions were arranged to encourage fruitful knowledge sharing among industry experts.



### New Generation of Parking Meter System

HKT is providing a new generation of parking meters for the Transport Department as a key Smart Mobility Initiative of Hong Kong's Smart City Blueprint. A mobile app will enable motorists to obtain real-time information on parking vacancy through vehicle-detection sensors. It not only minimizes the time for drivers to search for parking space, but also reduces traffic and parking congestion, thereby lowering fuel consumption and ultimately reducing emissions.

To further enhance parking efficiency, people can pay parking fees through multiple payment means and top up payment remotely through the app. We plan to develop more than 12,000 units of smart parking meter, which will gradually replace the existing parking meters in Hong Kong.



### 5.3 Content Dissemination and Responsible Advertising

The Group's media business disseminates content to viewers through multiple platforms. We strictly adhere to the Broadcasting Ordinance (Cap. 562) and relevant codes and guidelines in our television business operations. We inform the audiences about programs with content that may be unsuitable for children, including violence, strong language and nudity, with on-screen classification symbol and advisory message prior to the screening. We also protect underage audiences with parental lock on unsuitable programs and offer age-appropriate content, such as kid-centric channels and video-on-demand content on our paid platform.

PCCW strictly complies with the Trade Descriptions Ordinance (Cap. 362) to ensure that sales and marketing materials do not misrepresent our services and products so that customers can make informed decisions. We offer guidelines and trainings for our sales and marketing employees to ensure they understand our policy and compliance requirements. In 2019, there were no non-compliance cases.

PCCW consistently protects the intellectual property rights of PCCW, its customers and business partners. We have in place the Intellectual Property Rights Policy to ensure compliance with relevant laws and regulations. Our employees are required to follow the policy at all times to ensure that our advertising materials are free from copyright infringement.



## 5.4 Customer Service and Satisfaction

Customer service and satisfaction are core elements for measuring PCCW's service quality especially in retail operations. We listen to customers and understand their service needs. We take an omnichannel approach to customer communication, employing service hotlines, live webchat, online enquiry, Facebook, email, post, fax and customer service representatives in retail stores and service centers.

Our customers can also manage their e-bills and get instant online support through the My HKT platform. As of the end of 2019, the platform had 1.1 million registered accounts.

To monitor and improve the service quality of our frontline staff, we have different schemes in place:

- Call monitoring program
- Customer transaction and net promoter score survey after calls and visits
- Mystery shopper program in retail locations – over 1,300 mystery shopper visits in 2019



Service pledges and actual performance data are available on corporate websites. For any customer complaint, we aim to provide an initial reply within two working days and resolve it within four working days. In 2019, over 98% of customer complaints were handled within four working days.

PCCW Solutions ensures that our products and services consistently meet the needs of our enterprise customers. In accordance with ISO 9001, ISO 20000 and ISO 27001 standards, PCCW Solutions has established a quality management system (QMS) which defines quality management mechanisms across all business processes, including customer service. Our QMS is governed by our Quality Policy and Quality Manual. The QMS is led by the Head of Delivery and composed of Quality Representatives from multiple teams.

In 2019, PCCW received 65,109 compliments and 1,792 complaints from customers<sup>11</sup>. These represented an increase of 23.2% in the number of compliments and a decrease of 20.1% in the number of complaints compared to 2018. According to the latest customer satisfaction survey, 85% of customers were satisfied or very satisfied with the performance of our customer service representatives. Management regularly reviews the report on customer suggestions, compliments and complaints to identify rooms for improvement.

The Service Excellence Awards (SEA) is an internal scheme which aims to encourage our staff to perform excellent customer service continuously for both external and internal customers. In 2019, a total of 200 individuals and 32 teams were awarded the SEA. The most outstanding 30 individuals and three teams during the year were named year-end winners with cash and travel prizes.

PCCW also won more than 180 external sales and service awards in 2019. These included awards granted by the Contact Center World, Hong Kong Association for Customer Service Excellence, Hong Kong Retail Management Association, and Mystery Shopper Service Association.

We have participated in the Communications Association of Hong Kong's Customer Complaint Settlement Scheme (CCSS), which offers mediation services to resolve disputes between customers and telecommunications service providers.

<sup>11</sup> Customers from fixed-line, NETVIGATOR broadband, The Club, mobile, Now TV and ViuTV businesses.

### Striving for Continuous Service Improvement

Our employees are dedicated to improving service quality by continuous innovation. One example is a universal service tester, which is designed for technical hotline staff to conduct a comprehensive connectivity service test remotely on the circuit and pinpoint the fault almost instantly, without having to visit the customer's premises.

The tester was first introduced to support NETVIGATOR, and was then extended for Now TV service. It can help avoid around 15% of site visits, thereby shortening the service restoration time and minimizing the inconvenience caused to customers.



## 6. OUR SUPPLY CHAIN MANAGEMENT

PCCW has an extensive supply chain for various goods and services including IT, office equipment, and marketing and sales services, to support our quality product and service delivery.

### Objectives

- Encourage suppliers and contractors to adopt sustainable initiatives
- Achieve zero bribery and corruption

### Measures

- Group Purchasing Policy and Principles
- Supplier Code of Conduct
- Regular supplier visits and performance reviews
- ISO standards for quality management system



We extend our values on ethics and professionalism to our supply chain. Our Supplier Code of Conduct (the “Code”) sets out the standards we expect our suppliers to follow, which covers issues such as human rights, labor standards, occupational safety and health, and environmental management. Suppliers are required to be fully compliant with our Code in business operations, such as prevention of child or forced labor, provision of fair payment and compliant work hours, prohibition of acts of discrimination, maintenance of freedom of association, provision of safe work conditions and management of environmental impacts. We continue to monitor compliance and review the Code from time to time to ensure it meets the latest laws and regulations.

Our CR Policy and our Bribery, Gifts and Entertainment Policy strictly prohibit any form of bribery and corruption at PCCW and in our supply chain. We maintain clear and private channels for reporting misconduct.

### 6.1 Supplier Selection and Monitoring

The Group Purchasing and Supply Department is responsible for engaging suppliers in accordance with the Code and the Group Purchasing Policy and Principles (GPPP).

Since 2018, we have attained the ISO 9001:2015 quality management system certification. It is framed in the high-level structure of Plan, Do, Check, Act model that enables us to continuously improve quality management in our procurement process and achieve the highest standard of business practices and service offering.



We vet potential suppliers and vendors according to our stringent procurement procedures. Suppliers are required to complete a vendor registration form and take assessment surveys as part of our potential supplier evaluation mechanism. Upon receipt of a registration form, the Group Purchasing and Supply Department engages an independent third party to conduct a company background research focusing on financial credibility. The department also conducts an assessment of the supplier's quality of delivery, environmental and social compliance and internal control.

During the engagement, BUs assess the supplier's performance continuously. Our Group Purchasing and Supply Department also carries out selective performance reviews to ensure adherence to the Code and the GPPP.

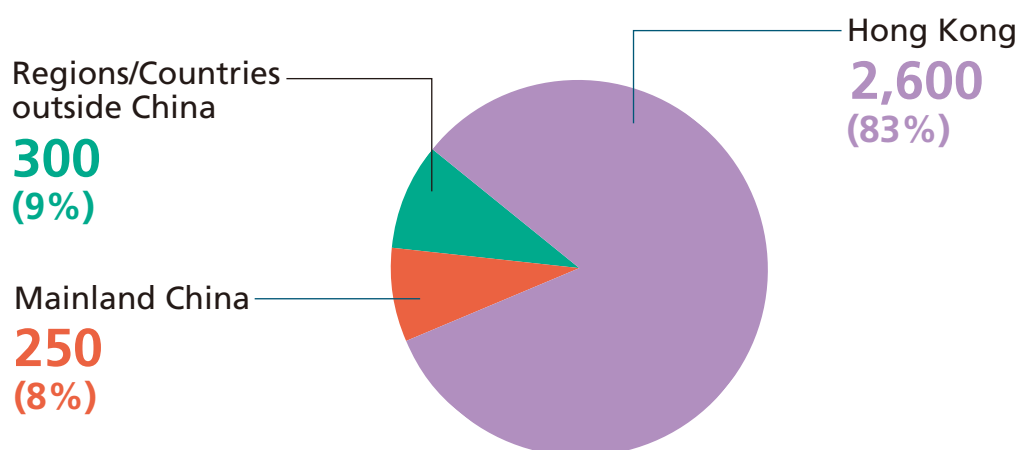
If any unsatisfactory ratings or findings are found, we will communicate with the suppliers and encourage them to take rectification actions. In case of persistent unsatisfactory performance or severe breach of our standards, we will consider terminating the contract or blacklisting the suppliers. In 2019, we also conducted 330 regular supplier visits to ensure suppliers' compliance with our policy requirements. There were no environmental or social non-compliance cases observed from our suppliers in the above exercise.

Apart from the regular supplier review, PCCW has also been conducting a large-scale supplier review since 2017. An independent third party has been commissioned to review all suppliers on our approved supplier list against our supplier engagement policy and standards. As a result of the review, we permanently blacklisted one supplier and put another on the observation list pending further evaluation.

## 6.2 Sustainable Procurement

We also prioritize local sourcing to reduce overall carbon footprint and support the local economy. In 2019, we engaged around 3,150 suppliers. Around 83% of them are based in Hong Kong.

### Distribution of suppliers by geographical locations



To demonstrate our commitment in sustainable procurement, we became one of the founding members of the Sustainable Procurement Charter launched by the Green Council in July 2018. The Charter aims at promoting sustainable procurement practice in companies in Hong Kong. We plan to further investigate opportunities and revamp our practices relating to sustainable procurement.





# ASSURANCE REPORT



## VERIFICATION STATEMENT

### Scope of Verification

Hong Kong Quality Assurance Agency ("HKQAA") has been commissioned by PCCW Limited ("PCCW") (SEHK: 0008) to undertake an independent verification for the "Our Environment" chapter and the related environmental performance data stated in its Environmental, Social and Governance Report 2019 ("The Report").

The scope of HKQAA's verification covers the data and information associating to PCCW's environmental performance as described in the "Our Environment" and "Performance Data Summary" chapters of The Report for the period of January 1, 2019 to December 31, 2019.

### Level of Assurance and Methodology

The process applied in this verification was referring to the International Standard on Assurance Engagements 3000 (Revised) – Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. Our evidence gathering process was designed to obtain a reasonable level of assurance for devising the verification conclusion. The extent of this verification process undertaken was provided for the criteria set in The Environmental, Social and Governance Reporting Guide of The Stock Exchange of Hong Kong Limited.

The systems and processes for collecting, collating and reporting the environmental performance data were verified. Our verification procedure covered reviewing of relevant documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the raw data and supporting evidence of the selected samples during the verification process.

### Independence

PCCW is responsible for the collection and presentation of the information presented. HKQAA does not involve in calculating, compiling, or in the development of the Report. Our verification activities are independent from PCCW.

### Conclusion

On the basis of our verification results and in accordance with the verification procedures undertaken, it is the opinion of the HKQAA's verification team that:

- The Report illustrates PCCW's environmental performance in a balanced, comparable, clear and timely manner;
- The environmental performance data and information states in the Report are reliable and complete.

The Report reflects appropriately PCCW's context and materiality of its environmental issues and allows stakeholders to have a clear understanding of its commitments and stewardship towards environmental management.

### Signed on behalf of Hong Kong Quality Assurance Agency

Connie Sham  
Head of Audit  
March 2020

# EXTERNAL CHARTERS AND MEMBERSHIP

## External Charters

Name of Association	Name of Charter
The Environment Bureau	Charter on External Lighting
The Environment Bureau	Energy Saving Charter
Department of Health/ Occupational Safety & Health Council	Joyful@Healthy Workplace Charter
Department of Health	Organ Donation Promotion Charter
Environmental Protection Department	Friends of EcoPark
Equal Opportunities Commission	The Racial Diversity and Inclusion Charter for Employers
Green Council	Sustainable Procurement Charter
Labour Department/ Occupational Safety & Health Council	Occupational Safety Charter
Occupational Safety & Health Council	Charter on Preferential Appointment of OSH Star Enterprise

## Membership

Name of Association	Type of Membership
Business Environment Council	Council Member
Employers' Federation of Hong Kong	Corporate Member
Girls Go Tech, The Women's Foundation	Technology Partner, Council Member
Food Grace	Green Membership
The Green Earth	Green Earth Companion, Water Category
The Hong Kong Council of Social Service	Caring Company Patron's Club – Coral Membership
The Hong Kong Institute of Human Resource Management	Corporate Member

# PERFORMANCE DATA SUMMARY

## Environmental Performance Data

	2017	2018	2019	Change (2019 vs 2018)
<b>The types of emissions and respective emissions data</b>				
Sulfur oxides (SOx) – Direct (kg)	6.62	6.45	6.11	-5.27%
Nitrogen oxides (NOx) <sup>12</sup> – Direct (kg)	3,369	3,549	3,221	-9.24%
Particulate matter (PM) <sup>13</sup> – Direct (kg)	304.94	321.08	294.42	-8.30%
<b>Greenhouse gas (GHG) emissions</b>				
GHG emissions – Scope 1 <sup>14</sup> (tonnes CO <sub>2</sub> -e)	6,497	8,925	6,953	-22.10%
GHG emissions – Scope 2 <sup>15</sup> (tonnes CO <sub>2</sub> -e)	248,652	239,987	236,018	-1.65%
GHG emissions – Scope 3 <sup>16</sup> (tonnes CO <sub>2</sub> -e)				
– Paper consumption	968.15	1,150.11	1,115.60	-3.00%
– Water consumption and sewage discharge	N/A	276.18	206.63	-25.18%
Total GHG emissions (Scope 1+2+3)	256,117	250,338	244,293	-2.41%
GHG emissions intensity per employee <sup>17</sup> (tonnes CO <sub>2</sub> -e/employee)	17.29	16.83	16.28	-3.27%
GHG emissions intensity per million revenue in HKD <sup>18</sup> (tonnes CO <sub>2</sub> -e/HKD\$ million)	6.98	6.49	6.69	+3.08%
<b>Hazardous waste produced</b>				
Solid waste <sup>19</sup> (tonnes)	337.25	277.36	202.66	-26.93%
Waste electrical and electronic equipment (WEEE) disposal <sup>20</sup>				
– Electronic and IT equipment (pieces)	53,191	52,676	66,227	+25.73%
– Equipment cables (metres)	109,102	137,918	178,134	+29.16%
<b>Non-hazardous waste produced</b>				
General waste <sup>21</sup> (tonnes)	889.00	860.51	849.25	-1.31%
Construction waste <sup>22</sup> (tonnes)	156.50	309.84	140.25	-54.73%

<sup>12</sup> The figures of 2017 and 2018 have been restated as they were overstated due to miscategorization of types of vehicles in 2017 and 2018.

<sup>13</sup> The figures of 2017 and 2018 have been restated as they were overstated due to miscategorization of types of vehicles in 2017 and 2018.

<sup>14</sup> Scope 1 emissions generated from HFC and PFC emissions for refrigeration; diesel from fleet and standby emergency generators, and petrol from fleet.

<sup>15</sup> Scope 2 emissions generated from the electricity consumed by PCCW major operations with individual meters.

<sup>16</sup> In 2017, Scope 3 emissions included generation from our office paper consumption. We extended the scope to include water consumption and sewage discharge in 2018.

<sup>17</sup> As at December 31, 2019, the number of employees in Hong Kong was 15,008, which is also the basis for electricity, energy and water intensity calculations.

<sup>18</sup> The calculation is based on the core revenue of PCCW. In 2019, the core revenue of PCCW is HK\$36,506 million. This figure is also the basis for electricity, energy and water intensity calculations.

<sup>19</sup> Solid waste includes industrial battery (valve-regulated lead-acid battery), office batteries and fluorescent tubes. In 2019, the figure included 150.77 tonnes of waste valve-regulated lead-acid batteries that were recycled.

<sup>20</sup> It does not include WEEE disposed of by the Group on behalf of customers.

<sup>21</sup> General waste includes mainly general office waste.

<sup>22</sup> Construction waste from renovation of shops.



	2017	2018	2019	Change (2019 vs 2018)
<b>Waste management and results</b>				
Scrap materials recycled <sup>23</sup>				
– SIM cards <sup>24</sup> (pieces)	2,858,640	729,913	N/A	N/A
– Other materials (pieces)	554,748	300,201	230,145	-23.34%
Toner and ink cartridges recycled (pieces)	1,983	1,762	1,808	+2.61%
Paper recycled (tonnes)	145.45	156.02	129.53	-16.98%
Scrap metals recycled <sup>25</sup> (tonnes)	26.44	22.94	26.38	+15.00%
<b>Direct and/or indirect energy consumption</b>				
Electricity (kWh)	394,477,441	390,591,712	383,144,892	-1.91%
Electricity intensity per employee (GJ/employee)	95.89	94.52	91.91	-2.76%
Electricity intensity per million revenue in HKD (GJ/HK\$ million)	38.73	36.48	37.78	+3.56%
Petrol fuel – vehicle fleet (L)	136,701	124,257	116,493	-6.25%
Diesel fuel – vehicle fleet (L)	283,618	284,480	270,578	-4.89%
Diesel fuel – standby emergency generators (L)	54,882	54,309	49,260	-9.30%
Energy intensity <sup>26</sup> per employee (GJ/employee)	97.03	95.63	92.94	-2.81%
Energy intensity per million revenue in HKD (GJ/HK\$ million)	39.19	36.90	38.21	+3.55%
<b>Water consumption</b>				
Water consumption <sup>27</sup> (m <sup>3</sup> )	409,271	444,012	331,665	-25.30%
Water intensity per employee (m <sup>3</sup> /employee)	27.63	29.85	22.10	-25.96%
Water intensity per million revenue in HKD (m <sup>3</sup> /HK\$ million)	11.16	11.52	9.09	-21.09%
<b>Total packaging material</b>				
Shopping bags (tonnes)	21.89	20.25	15.97	-21.14%

<sup>23</sup> Scrap materials such as SIM cards, scrap cables, scrap telephones, obsolete devices and accessories, modems and router, set-top boxes, WEEE and transmission equipment.

<sup>24</sup> In 2017 and 2018, the Group disposed of a large quantities outdated SIM cards for recycling, which contributed to the large number reported. No such exercise was conducted in 2019.

<sup>25</sup> Scrap metals include copper, metal and steel.

<sup>26</sup> The calculation of energy intensity includes consumption of electricity, petrol fuel and diesel fuel.

<sup>27</sup> Water consumption of PCCW major operations with individual meters.



## REFERENCES TO HKEX ESG REPORTING GUIDE

A. Environmental		
Aspect A1: Emissions		PCCW's Comments
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	3. Our Environment
KPI A1.1	The types of emissions and respective emissions data.	Performance Data Summary
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity.	Performance Data Summary
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity.	Performance Data Summary
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity.	Performance Data Summary
KPI A1.5	Description of measures to mitigate emissions and results achieved.	3. Our Environment <ul style="list-style-type: none"> <li>&gt; 3.1 Climate Change and GHG Emissions</li> <li>&gt; 3.3 Green ICT Solutions</li> <li>&gt; 3.4 Employee Environmental Awareness</li> </ul>
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	3. Our Environment <ul style="list-style-type: none"> <li>&gt; 3.2 Sustainable Use of Resources</li> <li>&gt; 3.4 Employee Environmental Awareness</li> </ul>

A. Environmental		
Aspect A2: Use of Resources		PCCW's Comments
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	3. Our Environment
KPI A2.1	Direct and/or indirect energy consumption by type in total (kWh in '000s) and intensity.	Performance Data Summary
KPI A2.2	Water consumption in total and intensity.	Performance Data Summary
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	3. Our Environment > 3.1 Climate Change and GHG Emissions > 3.3 Green ICT Solutions > 3.4 Employee Environmental Awareness
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	PCCW's operation is not located in water-stressed regions and does not involve intensive water use. We reuse waste water from water-cooled condensers. For details, please refer to: 3. Our Environment > 3.2 Sustainable Use of Resources
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Performance Data Summary
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	3. Our Environment
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	3. Our Environment

**B. Social****Employment and Labour Practices**

<b>Aspect B1: Employment</b>		<b>PCCW's Comments</b>
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	2. Our People
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	2. Our People > 2.4 Diversity and Inclusiveness
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	2. Our People > 2.3 Talent Retention and Development
<b>Aspect B2: Health and Safety</b>		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to providing a safe working environment and protecting employees from occupational hazards.	2. Our People
KPI B2.1	Number and rate of work-related fatalities.	2. Our People > 2.2 Occupational Safety and Health
KPI B2.2	Lost days due to work injury.	Note <sup>28</sup>
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	2. Our People > 2.2 Occupational Safety and Health

<sup>28</sup> This KPI will be reported in the future.



**B. Social****Employment and Labour Practices**

<b>Aspect B3: Development and Training</b>		<b>PCCW's Comments</b>
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	2. Our People > 2.3 Talent Retention and Development
KPI B3.1	The percentage of employees trained by gender and employee category.	Note <sup>29</sup>
KPI B3.2	The average training hours completed per employee by gender and employee category.	We report on the total training sessions for employees. For details, please refer to: 2. Our People > 2.3 Talent Retention and Development
<b>Aspect B4: Labour Standards</b>		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to preventing child and forced labour.	2. Our People
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	PCCW respects and upholds fundamental human rights. We prohibit forced labour and child labour across our operations. For details, please refer to: 2. Our People
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	N/A

<sup>29</sup> This KPI will be reported in the future.





## B. Social

## Operating Practices

Aspect B5: Supply Chain Management		PCCW's Comments
General Disclosure	Policies on managing environmental and social risks of the supply chain.	6. Our Supply Chain Management
KPI B5.1	Number of suppliers by geographical region.	6. Our Supply Chain Management > 6.2 Sustainable Procurement
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	6. Our Supply Chain Management > 6.1 Supplier Selection and Monitoring
Aspect B6: Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	5. Our Customers
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	It is not material to PCCW's business.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	5. Our Customers > 5.4 Customer Service and Satisfaction
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	5. Our Customers > 5.3 Content Dissemination and Responsible Advertising
KPI B6.4	Description of quality assurance process and recall procedures.	5. Our Customers > 5.2 Reliable and Responsible Services and Products > 5.4 Customer Service and Satisfaction
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	5. Our Customers > 5.1 Customer Data Privacy and Security

**B. Social****Operating Practices**

<b>Aspect B7: Anti-corruption</b>		<b>PCCW's Comments</b>
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to bribery, extortion, fraud and money laundering.	1. Corporate Social Responsibility at PCCW > 1.3 Ethics and Integrity
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	1. Corporate Social Responsibility at PCCW > 1.3 Ethics and Integrity
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	1. Corporate Social Responsibility at PCCW > 1.3 Ethics and Integrity

**Community**

<b>Aspect B8: Community Investment</b>		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	4. Our Community
KPI B8.1	Focus areas of contribution.	4. Our Community
KPI B8.2	Resources contributed to the focus area.	4. Our Community

## **PCCW Limited** (Incorporated in Hong Kong with limited liability)

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PCCW shares are listed on The Stock Exchange of Hong Kong Limited (SEHK: 0008)  
and traded in the form of American Depositary Receipts on the OTC Markets Group Inc. in the US (Ticker: PCCWY).

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