

STRIVING FOR A SUSTAINABLE, INCLUSIVE AND THRIVING DIGITAL ECONOMY

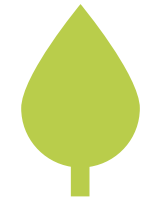
CK HUTCHISON GROUP TELECOM HOLDINGS
SUSTAINABILITY REPORT 2023





CREATING A THRIVING DIGITAL ECONOMY

- 17 NEXT GENERATION NETWORKS AND CONNECTIVITY SOLUTIONS
- 23 ARTIFICIAL INTELLIGENCE AND DATA ANALYTICS
- 25 DIGITAL SAFETY AND WELLBEING
- 28 DIGITAL INCLUSION



TAKING ACTION ON CLIMATE CHANGE

- 32 CLIMATE CHANGE GOVERNANCE
- 34 CLIMATE CHANGE RISK MANAGEMENT AND SCENARIO ANALYSIS
- 35 SCIENCE-BASED EMISSIONS REDUCTION TARGETS
- 35 GHG FOOTPRINT AND EMISSIONS PERFORMANCE
- 39 GHG REDUCTION STRATEGY



PROMOTING A CIRCULAR ECONOMY

- 48 END-OF-LIFE PRODUCT MANAGEMENT
- 51 ECO-DESIGN
- 52 CIRCULAR NETWORKS
- 53 REDUCING WASTE IN BUSINESS OPERATIONS
- 54 MEASURING THE GHG IMPACT OF CIRCULARITY INITIATIVES



CREATING GREAT PLACES TO WORK

- 56 EMPLOYER OF CHOICE
- 57 EMPLOYEE ENGAGEMENT AND FEEDBACK
- 58 ATTRACTING DIVERSE TALENT
- 59 BUILDING A DIVERSE TALENT PIPELINE
- 60 PROMOTING EQUALITY AND INCLUSIVITY IN THE WORKPLACE
- 62 EMPLOYEE LEARNING AND DEVELOPMENT
- 64 EMPLOYEE WELLBEING



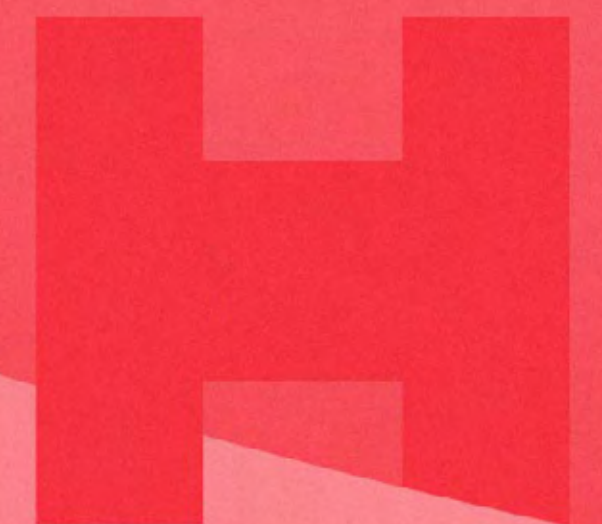
OPERATING RESPONSIBLY AND WITH INTEGRITY

- 66 ESG RATINGS AND RECOGNITION
- 67 PREPARING FOR REGULATORY CHANGE ON ESG REPORTING
- 71 DATA PRIVACY
- 74 CYBERSECURITY
- 79 ENVIRONMENTAL POLICY AND MANAGEMENT
- 80 SUSTAINABLE PROCUREMENT AND SOCIAL SUPPLIER STANDARDS
- 82 HEALTH AND SAFETY
- 83 ELECTROMAGNETIC RADIATION
- 84 PRODUCT QUALITY AND SAFETY
- 84 BUSINESS CONTINUITY PLANNING

85 APPENDICES

INTRODUCTION

- **ABOUT CKHGT**
- **MESSAGE FROM THE CHAIRPERSON**
- **ABOUT THIS REPORT**
- **SUSTAINABILITY AT CKHGT**



ABOUT CKHGT

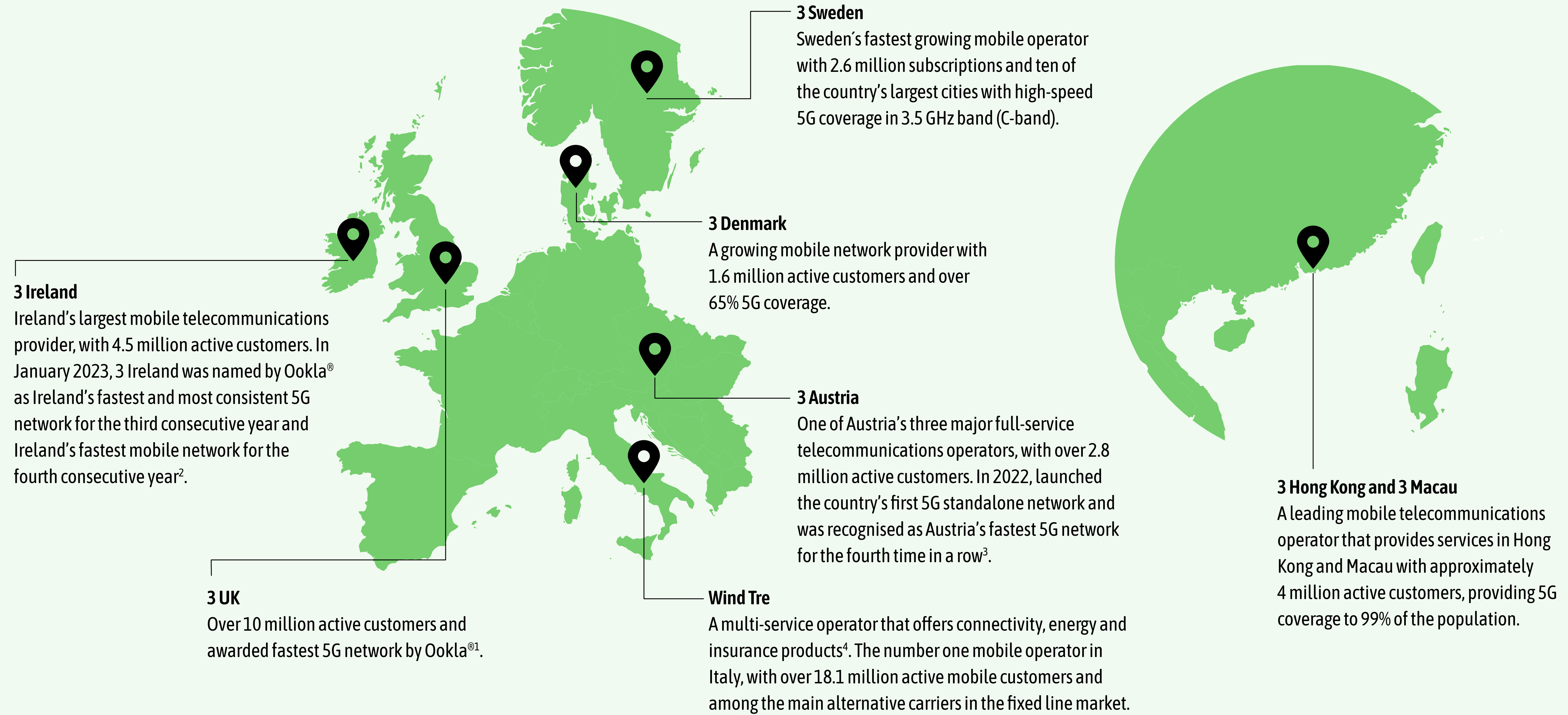
A pioneer in mobile data communication technologies, CK Hutchison Group Telecom Holdings Limited (CKHGT) is a leading global operator and innovator of converged telecommunications and digital services, implementing innovative technologies in international interconnectivity. It operates in eight markets: UK, Italy, Sweden, Denmark, Austria, Ireland, Hong Kong SAR and Macau SAR. It forms part of CK Hutchison Holdings Limited (CKHH or 'the Group') - a multinational conglomerate committed to development, innovation, technology, leadership and sustainability in four core businesses: ports and related services; retail; infrastructure; and telecommunications.

CKHGT has a strong commitment to the highest standards of corporate governance, transparency and accountability. Environmental and social sustainability responsibilities are taken seriously with programmes and innovations across the CKHGT businesses to address related challenges.

“““

CKHGT is a leading global operator and innovator of converged telecommunications and digital services.

FIGURE 1: CKHGT OPERATIONS



Footnotes

All customer numbers are as at 31 December 2023.

¹Based on analysis by Ookla® of Speedtest Intelligence® data for Q1-Q2 2021 to Q3-Q4 2023.

²Based on analysis by Ookla® of Speedtest Intelligence® data for Q3-Q4 2020 to Q3-Q4 2023.

³Based on analysis by Ookla® of Speedtest Intelligence® data for Q3-Q4 2022.

⁴Energy and insurance services offered by third-party partners. Wind Tre S.p.A. insurance intermediary registered in section A-Agents of the Register of Undertakings and Intermediaries (RUI), subject to supervision by Istituto Per La Vigilanza Sulle Assicurazioni (IVASS).

OUR PURPOSE

CKHGT plays an essential role in society, connecting over 44 million people across its operating markets, enabling people to work, learn, do their banking and shopping, and to connect with their friends and families. It also forms an integral part of operations for businesses and governments. In doing so, it acts as a driver of economic growth and improved living standards.

CKHGT aims to be environmentally responsible in the way it manages its businesses and networks, and is focused on growing the opportunities for positive social and environmental impact through its products and services, including through supporting the transition to a low-carbon economy.

CKHGT’s role in serving society is clear — to build a sustainable, inclusive and thriving digital economy.

FIGURE 2: CKHGT AT A GLANCE

OVER 44 MILLION ACTIVE CUSTOMERS¹



€10,071 MILLION REVENUE^{2,3}



OVER 11,000 PETABYTES DATA TRAFFIC



INVESTING IN DEPLOYMENT OF 5G COVERAGE ACROSS ITS BUSINESS UNITS



OVER 17,400 EMPLOYEES¹



8 OPERATING MARKETS



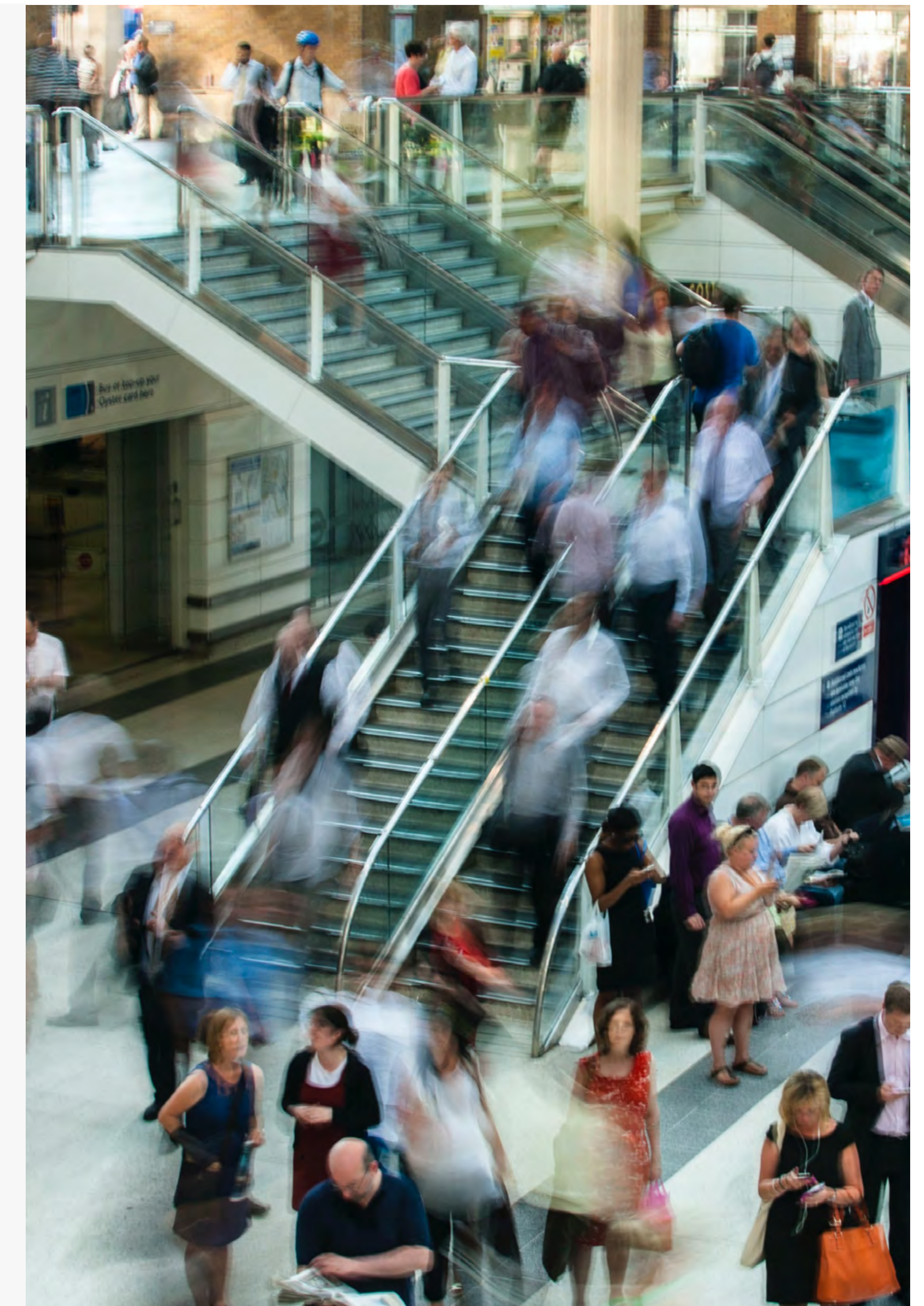
OVER 63,000 MOBILE SITES¹



¹ As at 31 December 2023

² Post-IFRS 16

³ For the year ended 31 Dec 2023



MESSAGE FROM THE CHAIRPERSON

I am pleased to report on the progress made this year by CKHGT with respect to its sustainability strategy and achievements. As a leading global operator and innovator of converged telecommunications and digital services, CKHGT recognises the importance of addressing potential climate-related risks, staying resilient and driving towards our overall objective of being a sustainable business.

The year 2023 had many uncertainties and challenges for businesses including high levels of inflation and intense market competition. Nonetheless, we remained focused on investing in sustainable development initiatives and progressing towards our sustainability objectives and targets.

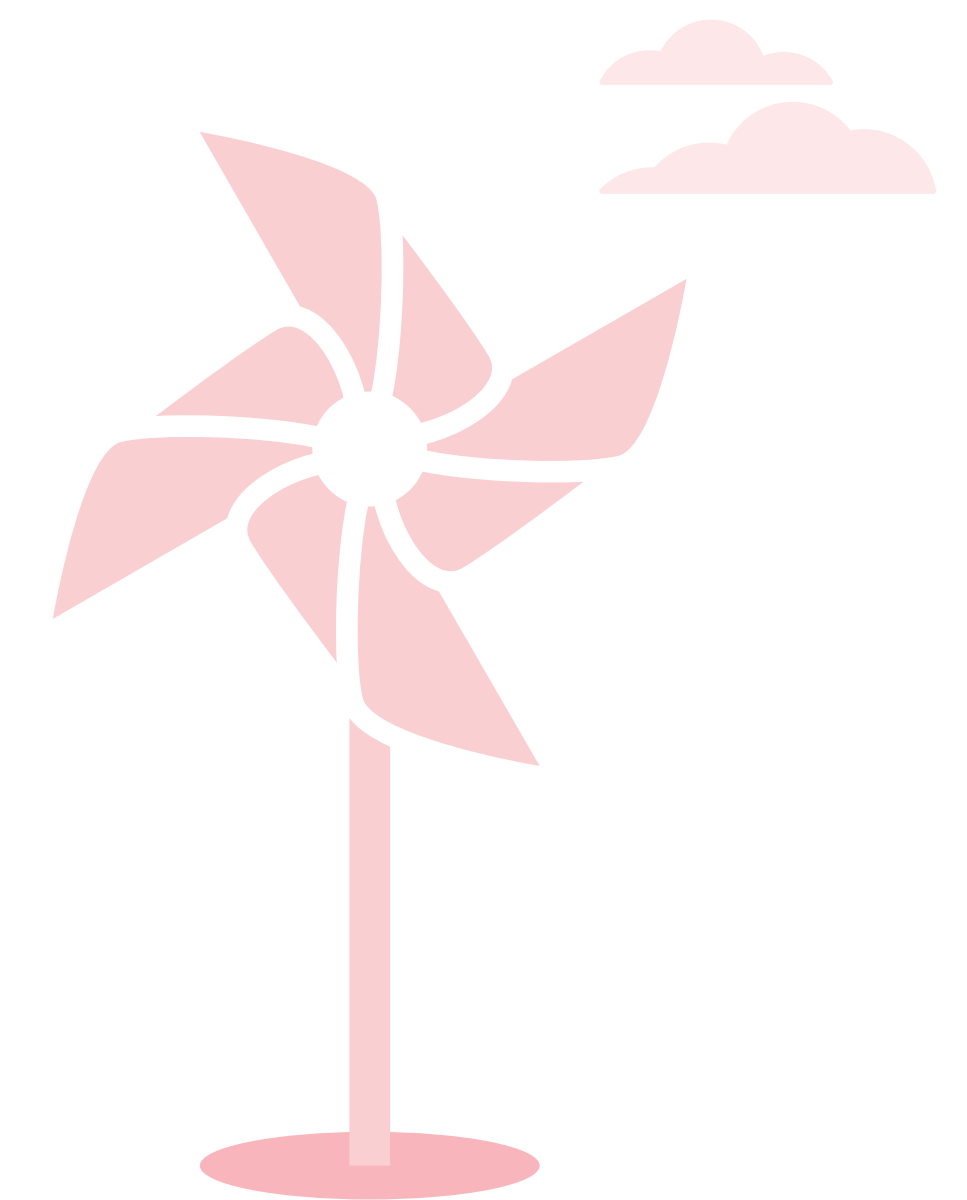
In 2022, we reported that CKHGT had obtained approval from the Science Based Targets initiative (SBTi) for its near-term targets: reducing scope 1 and 2 greenhouse gas (GHG) emissions by 50% by 2030 and reducing scope 3 GHG emissions by 42% by 2030, each against a 2020 baseline. In 2023, we achieved a reduction of 4% in our scope 1 and 2 GHG emissions footprint versus 2022, and 25% against our 2020 baseline, demonstrating good progress towards the achievement of our target. We increased our procurement of renewable electricity to 61% of our consumption, up from

58% in 2022 – which made a substantial contribution to the achievement of this scope 1 and 2 reduction. Our scope 3 emissions decreased by 7%, although the majority of our scope 3 footprint continues to be measured by emissions factors from external databases that do not reflect underlying reductions achieved. In 2023 we became a member of CDP Supply Chain to elevate our engagement with suppliers on GHG disclosure and management and help us to better measure and drive reductions over time.

CKHGT recognises its fundamental role in helping to create a sustainable, inclusive and thriving digital economy across its operating markets. To this end, throughout the year, its business units continued to invest significantly in the development and deployment of high performance and energy efficient next generation network infrastructure. They have also continued to innovate in, and deploy, products and services that leverage next-generation technologies for positive impact. For example, **3** Hong Kong launched DIGIBOX to showcase its state-of-the-art and transformational 5G smart solutions and **3** Ireland continued its multi-year project with Ireland's leading energy utility, with over 1.6 million smart meters rolled out since the start of the project in 2019. Wind Tre signed 18 new 'smart cities' agreements with municipalities, and launched the Transformation Academy - a digital training school for municipal administrators and staff.

“

We increased our procurement of renewable electricity to 61% of our consumption, up from 58% in 2022.



In a world with economic uncertainty, we recognise the important role that digital technologies play in supporting equal access to opportunity for our customers. We therefore continue to invest in programs that help to reduce the digital divide. For example, Wind Tre signed a memorandum of understanding with 92 small villages as part of its 'Connected Villages' project, with the aim of supporting rural connectivity and inclusion. 3 UK has donated over 16,000 devices to those in need since the launch of its Reconnected program in 2016, and during 2023, doubled its pledge to the UK National Databank - offering 2 million GB of data to help an estimated 80,000 people get connected over the next few years.

As the regulatory environment for sustainability reporting continued to evolve, CKHGT collaborated across its business units and with other parts of the CK Hutchison Group to lay the foundations for future reporting.

I am proud to report that this year, CKHGT obtained its first ESG rating with Sustainalytics, and was included in the Sustainalytics' 2024 Top-Rated ESG Companies List - being awarded ESG Top-rated badges for our industry and region. This is testament to the steady progress made by CKHGT on all aspects of ESG performance and management across a number of years.

Finally, I would like to say thank you again this year to all our team members across CKHGT for their hard work and dedication.

Canning Fok

Deputy Chairman of CKHH;
Executive Chairman of CKHGT

15 September 2024



CKHGT obtained its first ESG rating with Sustainalytics, and was included in the Sustainalytics' 2024 Top-Rated ESG Companies List.



ABOUT THIS REPORT

This report is the second standalone report for CKHGT, alongside the [sustainability report](#) of CKHH, its parent company. This report outlines the CKHGT sustainability strategy and management approaches to material topics and also covers CKHGT's sustainability performance for the year from 1 January to 31 December 2023 (the 'reporting period').

REPORTING SCOPE

This report covers the activities of business units within CKHGT over which the Group has operational control. The information in this report relates to CKHGT unless otherwise indicated.

KPMG LLP was engaged to undertake independent limited assurance, reporting to CKHGT, using the assurance standards ISAE (U.K.) 3000 and ISAE 3410, for the selected GHG emissions that have been highlighted with an * in this report. KPMG LLP's full statement is available on [page 91](#) of this report.

REPORTING FRAMEWORKS

HKEX ESG Guide

As a wholly owned subsidiary of CKHH, CKHGT collects data guided by the framework of the Hong Kong Stock Exchange Environmental, Social and Governance Reporting Guide.

Taskforce on Climate-related Financial Disclosures (TCFD)

CKHGT supports the TCFD recommendations and this sustainability report is guided by the TCFD framework in sharing its progress and plans (see section [Taking Action on Climate Change](#)).

Global Reporting Initiative (GRI)

This report references selected standards from the GRI.

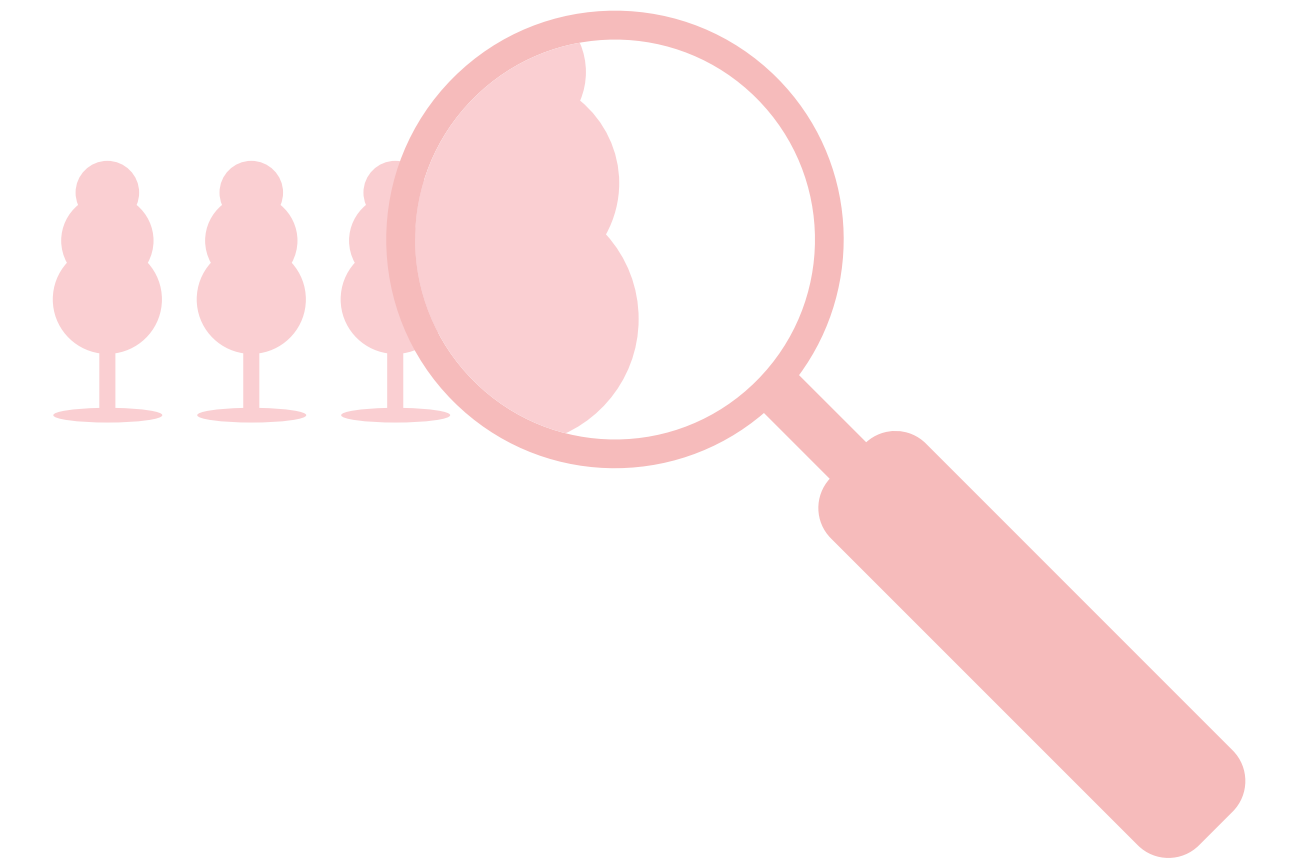
GSMA's⁶ ESG Metrics for Mobile

This report has been prepared with reference to the GSMA's ESG Metrics for Mobile and has adopted a number of metrics from this voluntary framework.

Additional information

The content of this report is supplemented by additional information in the sustainability sections of the corporate websites of [CKHGT](#) and its parent company, [CKHH](#).

⁶The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation that helps business and society thrive. www.gsma.com



SUSTAINABILITY AT CKHGT

SUSTAINABILITY GOVERNANCE

Reporting to the Board of CKHGT, the Policy Board is the highest-level executive decision-making body. Its membership includes CEOs of the CKHGT business units, and Mr Frank Sixt (CKHH Group Co-Managing Director and Group Finance Director, CKHGT Group Finance Director). It is chaired by the CEO of CKH Innovations Opportunities Development (CKH IOD) - CKHGT's dedicated innovation and collaboration business. The CKHGT Policy Board is responsible for approving the CKHGT Sustainability Strategy and key strategic projects and public reports.

The CKHGT Sustainability and Climate Change Network ('Network', formerly the 'Sustainability Network') comprises sustainability representatives from each CKHGT business unit, many of whom also lead related functions such as governance, risk and compliance and investor relations, bringing diverse expertise and perspectives. This Network meets quarterly to drive forward sustainability and climate change progress. The Climate Action Working Group as reported in CKHGT's 2022 Sustainability Report, ceased to meet as a separate group, with all climate change-related matters discussed directly within the Network.

At the end of 2023, CKHGT held its second in-person sustainability conference – a two-day event bringing together sustainability representatives from business units to share best practice and discuss priorities.

The Head of Sustainability for CKHGT also chairs a new CKHH European Sustainability Working Group to facilitate knowledge-sharing and collaboration where appropriate, with other CKHH divisions.

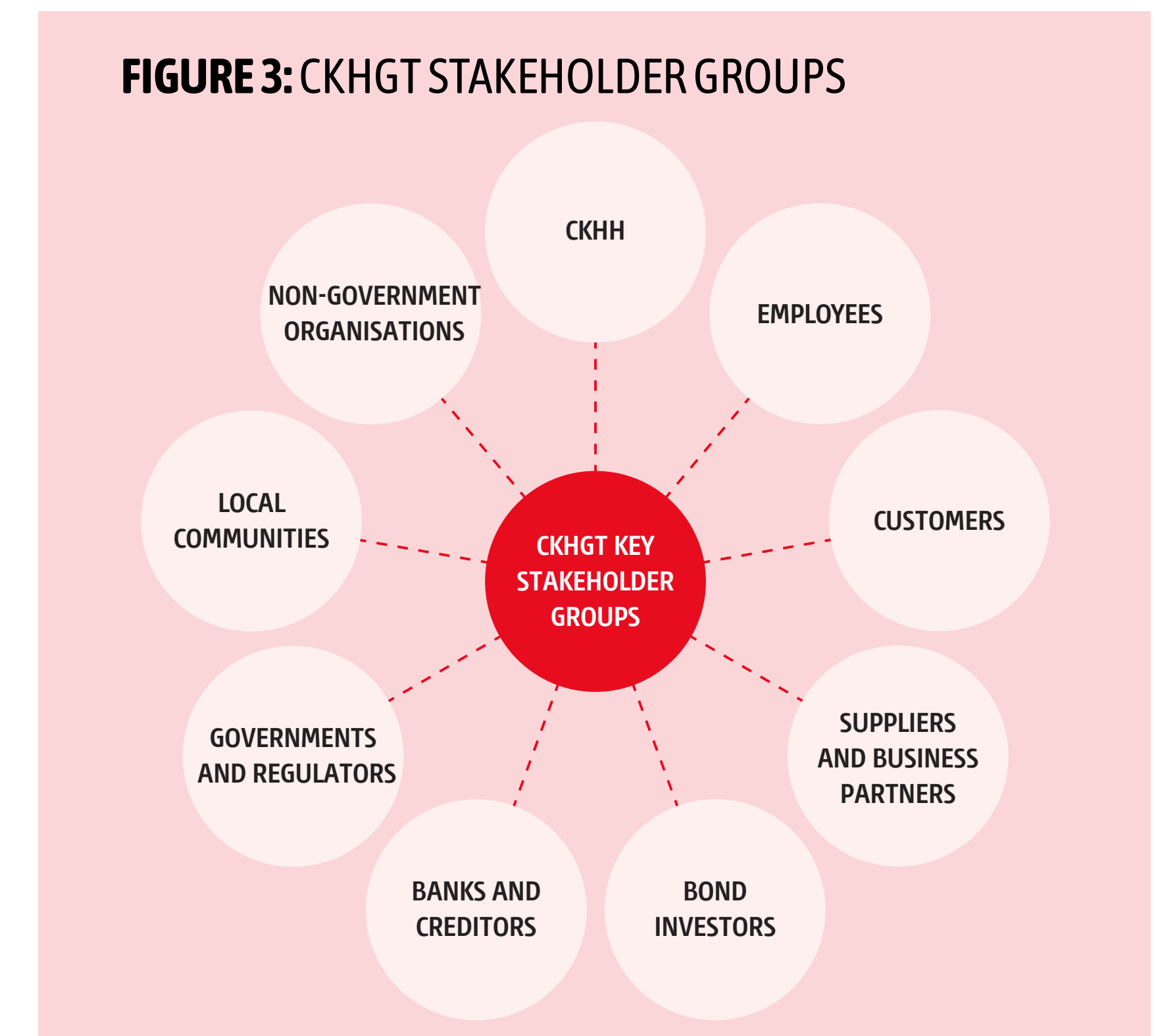
The CKHGT Sustainability Strategy aligns with the CKHH Sustainability Framework. Individual business units also have, or are developing local level sustainability strategies, and are working towards integrating these into their performance incentive arrangements.

STAKEHOLDER ENGAGEMENT AND MATERIALITY

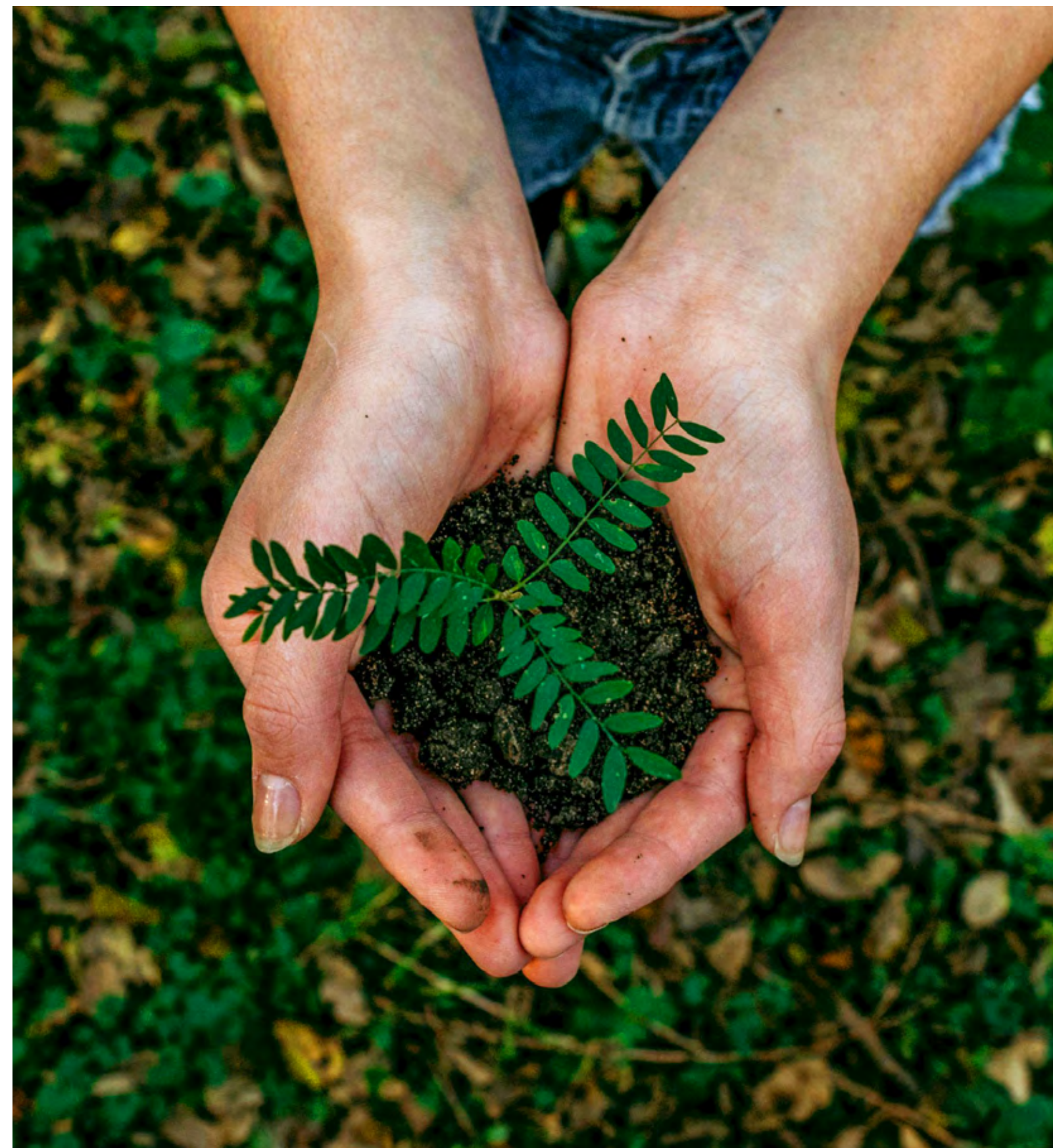
CKHGT's material issues are identified in an iterative process that is updated with new information and emerging trends. CKHGT applies the concept of double materiality - prioritising issues through stakeholder perspectives on impacts to environment and society, and impacts to the organisation.

Key stakeholders include:

- CKHH;
- Employees;
- Customers;
- Suppliers and business partners;
- Bond investors;
- Banks and creditors;
- Governments and regulators;
- Local communities; and
- Non-government organisations.



CKHGT actively participates in GSMA committees and working groups, playing a central role in industry dialogue on key issues for the sector. For example, CKHGT has senior representation on the GSMA's Technology Group, Strategy Group and Policy Group. CKHGT sustainability representatives participate in the GSMA's Climate Action Working Group, Sustainability Network, EU Sustainability Policy Group and Circular Devices Working Group.



Ongoing engagement with governments and regulators is led by senior corporate affairs officers at European and national levels, as well as within business units, and sustainability investor outreach is led by the CKHH Investor Relations and Sustainability departments. During 2023, CKHH held a dedicated ESG presentation for banks and investors to update on sustainability-related activities including progress against science-based GHG reduction targets, and CKHGT's performance on its first ESG rating with Sustainalytics – in which it was awarded 'low risk' and ranked fourth in the telecommunications sector.

Each business unit faces its own set of sustainability challenges and opportunities specific to its market. Business units maintain a close dialogue with local stakeholders, informing their sustainability focus and approach. This is done through dedicated materiality exercises and ongoing engagement, for example, through customer and employee focus groups and surveys, and meetings.

In line with the broader CKHH approach to materiality and leveraging the bottom-up analysis of business units, a three-step iterative approach is followed for CKHGT.

FIGURE 4: MATERIALITY ASSESSMENT APPROACH

IDENTIFICATION

Identify potential sustainability topics relevant to CKHGT, referencing:

- Sustainable Accounting Standards Board (SASB) Telecommunications Standard;
- GSMA's Material Sustainability Issues for the Mobile Sector;
- GSMA's ESG Metrics for Mobile;
- UN Sustainable Development Goal (SDG) resources;
- ESG rating agency reports; and
- Research on emerging issues and global socioeconomic trends.

PRIORITISATION

Prioritise material topics using the following inputs:

- Business unit materiality assessments;
- Feedback from questionnaires and one-to-one interviews with stakeholders;
- Evaluation of impact on CKHGT's ability to create long-term and sustainable value.

VALIDATION

Prioritised issues are developed into a draft sustainability strategy, which is reviewed and approved by the CKHGT Policy Board.

📍 MATERIALITY ANALYSIS ACROSS CKHGT BUSINESS UNITS

3 AUSTRIA

During 2023, 3 Austria undertook a detailed double materiality analysis in line with the new European Sustainability Reporting Standards (ESRS) to support preparation for compliance with the Corporate Sustainability Reporting Directive (CSRD) and to inform sustainability strategy going forward.

An assessment of impacts, risks and opportunities was conducted across all ESRS topics, through cross-functional workshops and stakeholder surveys, supported by a third-party advisor. The results of the double materiality analysis were reviewed and approved by the 3 Austria Executive Team and now form the foundation for further work to enhance sustainability disclosures and strategy.

WIND TRE

Wind Tre maintains ongoing dialogue with its stakeholders, during the normal course of business, and at times specifically for the purpose of materiality analysis. The most recent comprehensive materiality analysis identified over 250 topics relevant for Wind Tre, which were prioritised through internal and external workshops. Seven key themes were identified and formed the basis of Wind Tre’s ‘2030 ESG Plan’. In 2023 implementation of the ESG Plan continued, and it was updated to include a new ‘sustainable supply chain’ goal. Performance against each goal is reported quarterly to the Wind Tre senior management team.

Wind Tre has also developed an ESG composite index, linked to its ESG Plan, with a 15% weighting on the short-term incentives of all managers, thereby incentivising a collaborative approach to the achievement of targets.

3 UK AND 3 IRELAND

In 2023, building on the considerable sustainability-related activity to date, 3 Ireland and 3 UK launched ‘Sustainable Connections’ – CKHGT’s first published sustainability strategy in each market. These local strategies mirror the goals within the CKHGT Sustainability Strategy whilst including local targets, and are aligned with the UN SDGs. The strategies were launched internally and externally, and are being embedded through detailed workplans.



3 SWEDEN AND 3 DENMARK

In 2023, both 3 Sweden and 3 Denmark initiated double materiality assessments, to inform local sustainability strategy and to prepare for the CSRD. The assessments involved extensive stakeholder engagement to identify the most material sustainability topics for each market, based on identification of impacts, risks and opportunities. The work will continue in 2024 and be used to update the current sustainability strategy and sustainability policy.

3 HONG KONG

In 2023, 3 Hong Kong refreshed its evaluation of material sustainability issues for the business. Employees completed an online survey to rank environmental, social and governance topics according to how important they perceived them to be for the continuity of business operations. This assessment is helping the business to further develop its sustainability strategy, prioritise initiatives and establish metrics for performance evaluation.

The following table highlights the material topics identified for CKHGT, and the related UN SDGs.

CLIMATE CHANGE



This issue relates to operational GHG reductions, transition planning towards net-zero, climate risk and opportunities, and helping to enable GHG reductions for customers through our products and services.

CIRCULAR ECONOMY



This issue relates to circular devices, involving greater use of recycled and recyclable content in products and packaging, end-of-life product management and mechanisms that enable devices to have a longer life in use.

DIGITAL INCLUSION



This has a differing focus across CKHGT's business units, which includes building digital capability for excluded or limited users of digital technologies, extending access to rural areas, and providing affordable access in times of difficulty.

DIGITAL SAFETY



This relates both to providing products and services that help customers stay safer online, and to broader digital safety education and communication initiatives.

LEARNING AND DEVELOPMENT



This relates to the opportunities the business units provide to support the ongoing development of their workforce in the context of a fast-changing technological environment and competitive market for talent.

FIGURE 5: CKHGT MATERIAL TOPICS

DIVERSITY AND INCLUSION



This relates to creating more diverse and inclusive workplaces, considering aspects such as recruitment, employee development and pay equity, as well as addressing broader issues associated with diversity in the talent pipeline. There is differing focus across CKHGT's business units depending on local circumstances.

CYBERSECURITY



This relates to the management arrangements for cybersecurity risks, including governance, risk assessment, controls, monitoring and incident response as well as the broader context of technological developments and innovation.

DATA PRIVACY



This relates to the arrangements in place across CKHGT and its business units for maintaining the privacy of customers' personal information in compliance with legislation and best practice.

RESPONSIBLE SUPPLY CHAIN



This relates to environmental, social and governance risks in the supply chain and how the business units assess and manage these risks through sustainable procurement practices.

UN GLOBAL COMPACT

CKHGT recognises the important framework of the UN Global Compact in providing fundamental sustainable operating principles in the areas of human rights, labour, environment and anti-corruption.

The parent of CKHGT, CKHH, is a member of the UN Global Compact, and a number of CKHGT business units (for example Wind Tre, 3 Denmark, 3 Austria and 3 Sweden) have taken up direct membership as subsidiaries. In 2023, Wind Tre signed the 'Business for People and Society' Manifesto, drawn up by the UN Global Compact Network Italy, committing to accelerate and increase efforts in promoting the social dimension of sustainability.



SUSTAINABILITY STRATEGY

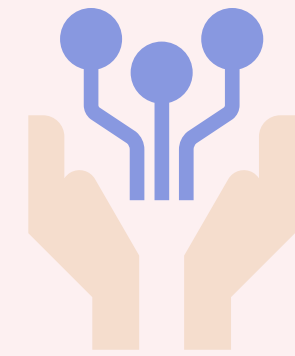
The CKHGT Sustainability Strategy was approved by the CKHGT Policy Board in March 2022. It aligns with the overarching Group Sustainability Framework of CKHH and addresses material topics for CKHGT, setting out key focus areas and specific actions being undertaken within individual business units and as a collective group, to deliver on these outcomes.

FIGURE 6: CKHGT SUSTAINABILITY STRATEGY



CKHGT SUSTAINABILITY HIGHLIGHTS FOR 2023

CREATING A THRIVING DIGITAL ECONOMY



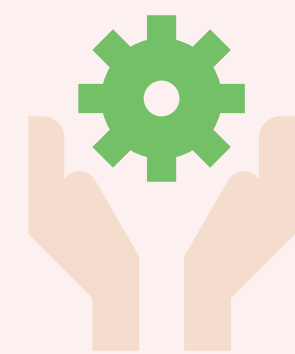
- Wind Tre signed 18 new 'smart cities' agreements with municipalities and launched the Transformation Academy - a digital training school for municipal administrators and staff.
- **3** Ireland continued its multi-year project with Ireland's leading energy utility, with over 1.6 million smart meters rolled out since the start of the project in 2019.
- **3** Hong Kong launched a new 'anti-scam' service enabling customers to identify, block and report scam or nuisance calls.
- Wind Tre has signed memorandums of understanding with 92 small villages since the 2022 launch of its 'Connected Villages' project which is aimed at reducing the digital divide between Italy's rural villages and cities.
- **3** UK doubled its pledge to the UK National Databank, offering 2 million GB of data to help an estimated 80,000 people get connected. Through its sub-brand SMARTY it also launched a new social tariff to support its most vulnerable customers.

TAKING ACTION ON CLIMATE CHANGE



- Total scope 1 and 2 emissions decreased by 25% against the baseline year of 2020.
- Total percentage of renewable energy consumption for CKHGT grew from 58% in 2022 to 61% in 2023, primarily driven by increased renewable electricity in Wind Tre.
- **3** UK and **3** Ireland undertook significant projects working with specialist providers to develop their local decarbonisation strategies.
- Wind Tre launched and integrated its AI-based Smart Energy Tool which uses statistical monitoring to increase energy efficiency of network equipment.
- **3** Ireland continued to extend its installation of small-scale solar on cell sites.

PROMOTING A CIRCULAR ECONOMY



- **3** Sweden expanded sales of refurbished mobile phones through the **3** Begagnat programme and launched a device-as-a-service model to business customers, further enabling device reuse and recycling.
- **3** Ireland launched a trade-in service so that customers can return their old devices, enabling device reuse and recycling.
- **3** Hong Kong and **3** Ireland joined Wind Tre, **3** Sweden and **3** Denmark in offering a SIM made from 100% recycled plastic.
- **3** Ireland launched a new partnership to support the achievement of its target to ensure that 100% of decommissioned network equipment is reused or responsibly recycled by 2025.
- CKHGT participated in the GSMA's Circular Devices Working Group and started to measure GHG savings of refurbished devices and more sustainable SIMs.

CREATING GREAT PLACES TO WORK



- CKHGT received recognition for employer brand and experience across all markets, including 'Employee Experience Champion' in Austria, 'Career Company' in Sweden, 'Top Employer Italy' for the sixth consecutive year, and 'Asia's Best Employer Brand' in Hong Kong.
- CKHGT received recognition for inclusion and diversity including 'The Times Top 50 Employers for Gender Equality' in the UK, 'Diversity Leader in Europe' in Wind Tre and the 'equalita' seal of approval in Austria.
- Wind Tre was certified by the EQUAL-SALARY Foundation for the second year, demonstrating its equal pay for women and men.
- **3** Hong Kong implemented the Talent Pool Initiative, a programme aimed at identifying and nurturing high-potential employees with tailor-made training to support their development.
- CKHGT provided over 477,000 training hours. This included through Wind Tre's Digital Transformation and Cybersecurity Programmes, and the Digital Academy offered by **3** UK and **3** Ireland.

OPERATING RESPONSIBLY AND WITH INTEGRITY



- CKHGT obtained its first Sustainalytics ESG rating and was included in the Sustainalytics' 2024 Top-Rated ESG Companies List and awarded ESG Top-rated badges for its industry and region.
- Wind Tre improved its EcoVadis score by 25%, with performance in the top 1% of telecommunications sector companies globally.
- CKHGT prepared for regulatory change including furthering its TCFD scenario analysis of climate-related risks and opportunities, assessing its economic activities for eligibility and alignment with EU Taxonomy, and performing other preparatory work for compliance with the CSRD.
- Wind Tre acquired a majority stake in RAD, a specialist in cybersecurity solutions, further strengthening its offering in this area.
- **3** UK achieved the ISO 14001: 2015 standard, and **3** Hong Kong extended its scope of ISO 14001 certification.
- Wind Tre deployed a new digital platform for assessing and monitoring supplier ESG performance, with 59% of its suppliers registered on the platform by the end of 2023.

CREATING A THRIVING DIGITAL ECONOMY

- NEXT GENERATION NETWORKS AND CONNECTIVITY SOLUTIONS
- ARTIFICIAL INTELLIGENCE AND DATA ANALYTICS
- POSITIVE IMPACT PRODUCTS
- DIGITAL SAFETY AND WELLBEING
- DIGITAL INCLUSION



We have an essential role to play in driving a ‘twin transition’ to a digital and sustainable society leveraging our networks, products, services, and the skills of our people. At the same time, we have an opportunity and a responsibility to mitigate inherent risks associated with the digital economy - particularly helping to ensure that our customers stay safe while using digital technologies, and that all people are able to access the benefits of digital technologies, leaving no one behind.

NEXT GENERATION NETWORKS AND CONNECTIVITY SOLUTIONS

Critical to a thriving digital economy are world-class, next generation networks and connectivity. These include 5G public and private networks and Low Power Wide Area networks (LPWAN), supporting innovative uses across a range of sectors and offering enormous potential to make lives safer, smarter and more efficient.

5G NETWORKS AND INNOVATION

5G networks offer super-fast data speeds, consistency of connection, and low latency, supporting innovative applications - many of which have a positive environmental or social impact. They offer more energy efficient transmission

at the high levels of data traffic required by society today, as outlined in the chapter ‘Taking Action on Climate Change’. CKHGT is investing in 5G networks and associated technologies including digitisation of core networks, and deployment of 5G services is progressing well across the operating markets. CKHGT is also promoting innovative uses of 5G for positive impact. For example, 3 Austria participated in a 5G Hackathon organised by the Austrian Research Promotion Agency and is supporting research and demonstration projects related to mobility and smart manufacturing. Wind Tre actively participated in projects related to Horizon 2020, supporting the Next Generation Meta Operating System (NEMO) project and the Ministry for Business Made in Italy (MIMIT) programme for emerging 5G technologies.



“

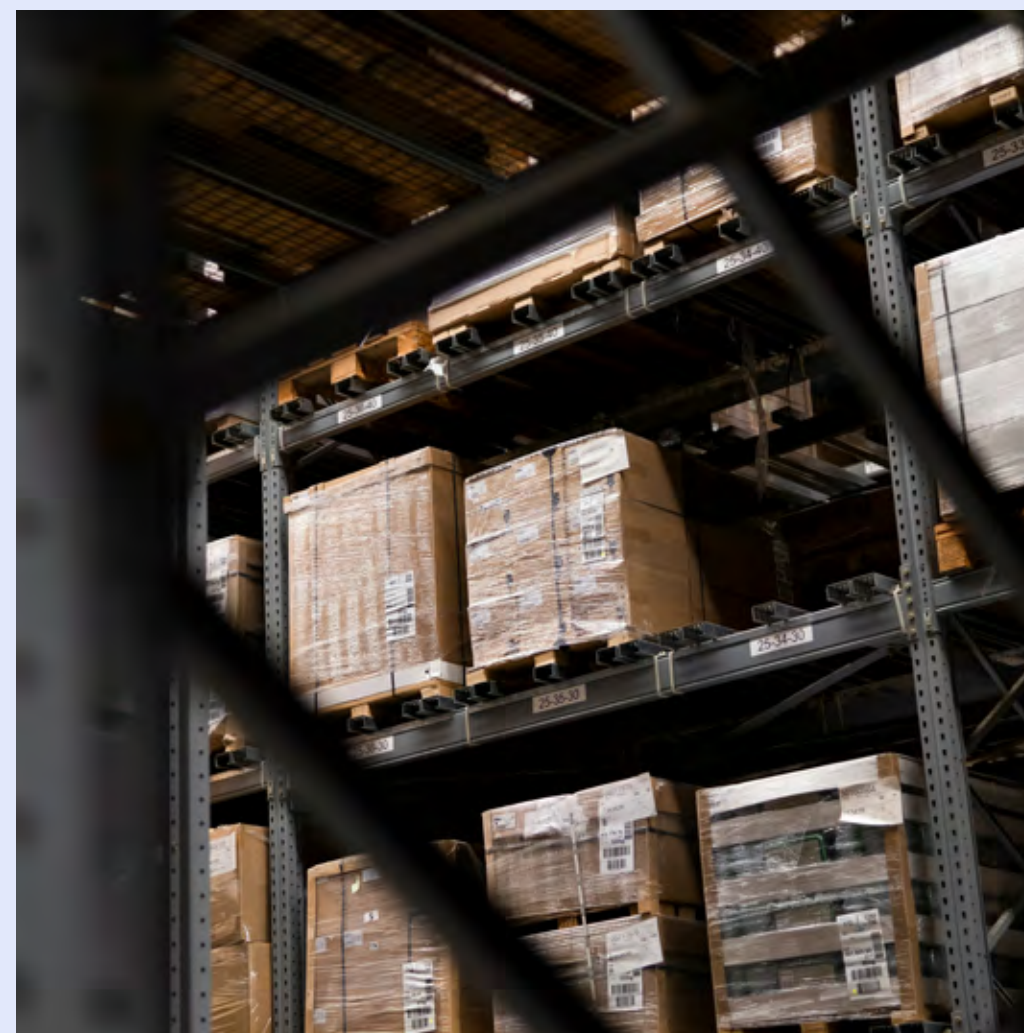
CKHGT is investing in 5G networks and associated technologies including digitisation of core networks, and deployment of 5G services is progressing well across the operating markets.



📍 5G INNOVATION FOR POSITIVE IMPACT

WIND TRE

In 2023, Wind Tre deployed its 'Energy Supervisor' solution for greater energy efficiency across Logista's Territorial Warehouse of Anagni. The solution leverages 4G/5G connectivity, an integrated energy management system and high energy efficiency LED lighting, enabling monitoring of energy consumption and centralised control of environmental sustainability parameters.



3 HONG KONG

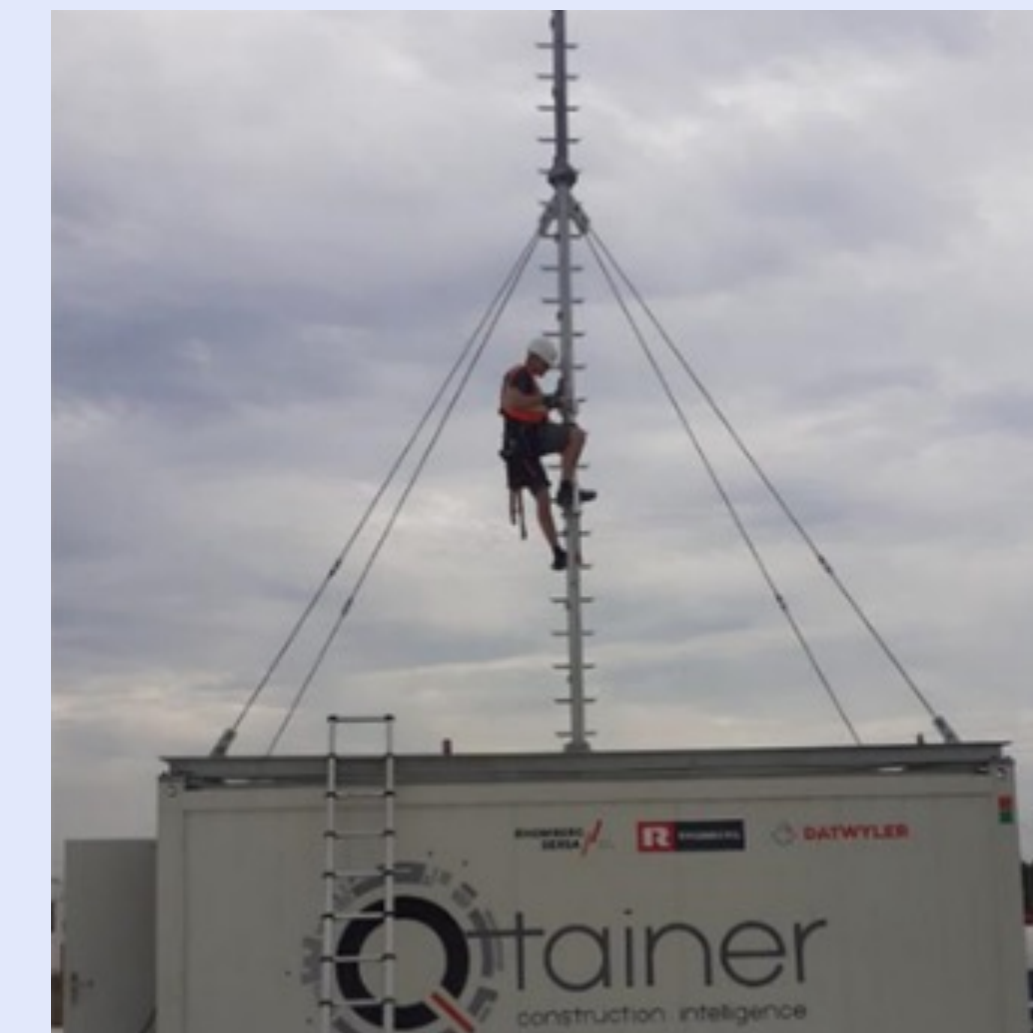
3 Hong Kong continues to invest in and launch innovative 5G products. For example, in 2023 it introduced advanced 5G smart robots for safer inspection of sealed environments during emergencies such as fire incidents or structural collapses. Furthermore, responding to the frequent flooding experienced in Hong Kong, 3 Hong Kong introduced a 5G Flood Detection Solution for Smart Car Parks, complementing 3 Hong Kong's existing portfolio of smart property solutions. It also expanded its 3Education 5G solution portfolio program successfully implementing a 5G smart campus at an international school.



5G Flood Detection Solution for Smart Car Parks

3 AUSTRIA

3 Austria, working with partners Rhomberg and Datwyler, launched Q-tainer, a transportable ruggedised private network product for construction sites. The Q-tainer will support improved worker safety, construction site security and enhanced efficiency through traffic optimisation. Deutsche Bahn became the first company in Germany to use the Q-tainer on a private network.



3 IRELAND

3 Ireland is working with leading nutrition group Glanbia plc, using 5G to optimise industrial processes, leading to fewer unexpected factory equipment failures and more efficient operations.



PARTNERING FOR SUSTAINABLE CITIES

By 2050, nearly 70% of the world’s population will be concentrated within cities, where approximately two thirds of all energy is consumed each year and where over 70% of the world GHG emissions are generated. The digitisation of cities can therefore play a fundamental role in decarbonisation. CKHGT is driving initiatives and providing smart city solutions leveraging technologies including 5G and IoT.



📍 WIND TRE PARTNERING WITH ITALIAN MUNICIPALITIES ON SMART CITY SOLUTIONS

As a part of its 2030 ESG Plan, Wind Tre aims to be the ‘smart partner of 100 smart cities’ delivering 5G-connected innovation to Italian cities. It acts as an advisor for Italian cities to design and support the digital and green transition through energy efficiency and smart mobility, among other solutions. The company signed 18 new cooperation protocols in 2023 bringing the total number of Italian cities active in the project to 25. At the end of 2023, Wind Tre launched the Transformation Academy - a digital training school for municipal administrators and staff, which will help to lay the foundations for the development of innovative solutions.



Smart City Transformation Academy

📍 SHOWCASING SMART CITIES APPLICATIONS IN HONG KONG

Recognising the importance of mobile networks and IoT connections in the smart city transition of Hong Kong, 3 Hong Kong launched DIGIBOX to showcase state-of-the-art 5G solutions that are creating future-shaping opportunities for enterprises. DIGIBOX features seven dedicated zones: Smart City, Smart Port, Smart Retail, Smart Education, Smart Care, Smart Restaurant, and Artificial Intelligence and Future.



DIGIBOX to showcase state-of-the-art 5G solutions

PRIVATE NETWORKS

For a range of our larger customers, CKHGT's dedicated innovation business CKH IOD is working in partnership with business units to design and manage private industrial mobile networks, which use 4G, 5G and proprietary technologies. These networks allow customers to run secure and highly reliable applications that support increased productivity, energy efficiency, worker safety, and in certain cases more inclusive working environments.

📍 IMPLEMENTATION OF 5G IN HONG KONG PORT

In 2023, 3 Hong Kong entered into a strategic collaboration with Hutchison Port Holdings Trust to deploy advanced 5G technology and implement a host of innovative pilot projects within its Hong Kong terminals including remote control of rubber-tyred gantry cranes, and AI-enhanced CCTV for security and traffic monitoring. These projects have proven effective in reducing operating cost and enhancing safety and operational efficiency. With this digitally-connected infrastructure in place, the terminals are empowered to unlock new levels of remote execution capabilities, facilitate a greater number of connected devices and implement virtual private real-time networks.

📍 WIND TRE AND PSA ITALY TOGETHER FOR A SMART PORT IN GENOA

PSA Italy operates three terminals in Italy: PSA Genoa Prà, PSA Sech and PSA Venice, together handling over two million containers every year, and employing more than 1,000 people. In 2015, the Port of Genoa launched a global renewal project with the aim of making operations even more efficient, modern and safe. Wind Tre is designing, constructing and installing a secure and reliable high-performance 5G private network at the Port of Genoa to support this aim.



Genoa's Smart Port, collaboration between Wind Tre and PSA Italy

📍 3 AUSTRIA SUPPORTS NEXT-GEN 112 SERVICE DEVELOPMENT WITH FREQUENTIS

During the year, 3 Austria developed a private 5G network at the Vienna headquarters of Frequentis - a global leader in air traffic management and public safety command and control solutions. The network will form part of Frequentis' own research and development capabilities, allowing the company to experiment with new software solutions on a dedicated 5G network, simulating different locations and real-world conditions. The private network will help Frequentis to accelerate new public safety solutions that will allow first responders to cooperate across agencies in the most challenging situations and environments.

LPWANS AND INNOVATIVE IOT APPLICATIONS

CKHGT is also investing in LPWANs that support IoT connectivity in applications where small amounts of data are transmitted over a longer period and where the ultra-low latency of 4G and 5G is not required. Across CKHGT, Narrowband-IoT (NB-IoT) is operational in Italy, Austria and Ireland, Long-term Evolution for Machine Type Communications (LTE-M) is operational in Ireland, and LoRaWAN is operational in Austria.

In 2023, CKHGT grew its IoT connections by 34%, with the most significant area of growth being the connection of residential and commercial electricity meters, where the ability to monitor the energy consumption of assets, be they heavy machinery or household devices, enables better forecasting and reduced energy wastage. CKHGT currently has over four million SIMs in utility meters across Ireland, Austria and Italy, helping customers to actively monitor their consumption of electricity, gas and water.

CKHGT business units also offer connectivity management solutions that enable customers to realise the benefits of IoT networks and technology.

📍 COMPLETION OF LORAWAN IN AUSTRIA

3 Austria has successfully completed a country wide roll-out of IoT LoRaWAN infrastructure. The LoRaWAN system allows for the utilisation of sustainable applications such as smart electricity and smart water management. For instance, a children's hospital in Vienna uses LoRaWAN sensors to measure indoor air quality; and municipalities such as the City of Wolfsberg, can use energy-saving smart water meters to measure water consumption in real-time with sensors connected to the LoRaWAN. This supports water saving, energy saving, remote meter readings and a quick response to emergencies such as unplanned water leaks.



IOT AND GHG REDUCTIONS

Already, there are more connected devices than people in the world, and it is predicted that by 2025, 27 billion devices will be capturing data on how people live, work and move through cities.

A 2018 analysis of more than 640 IoT deployments, showed that 84% of existing IoT deployments have the power to meaningfully advance the SDGs. In conjunction with artificial intelligence and analytics, IoT solutions offer even more powerful tools to make decisions which create better societal outcomes. IoT connectivity has significant opportunity to support the transition to a lower carbon economy, by 'enabling' GHG reductions.

A GSMA study estimated the potential for avoided emissions across buildings, transport, manufacturing and energy sectors to be ten times greater than the global carbon footprint of mobile networks themselves.

📍 AUTOMATING METER READINGS WITH ESB NETWORKS IN IRELAND

Since 2019, 3 Ireland has been working in partnership with Ireland's leading energy utility, ESB Networks, to support the roll-out of smart electricity meters to every home, farm and business by the end of 2025. ESB Networks uses 3 Ireland SIMs embedded in smart meters that measure the energy consumption of individual customers at half hourly intervals. Connectivity is provided by 3 Ireland's dedicated purpose-built network which includes 2G and LPWAN capability. The smart meters enable customers to make informed choices about their electricity usage, and the smart metering supports an increase in renewable power on the electricity system, helping to cut CO₂ emissions. To date, over 1.6 million smart meters have been installed.

“This is a hugely important project. It will contribute towards Ireland's sustainability goals with smart meters helping consumers to become more energy efficient. With over 1.6 million smart meters installed so far, it is Ireland's largest IoT network by some distance”.
(Karl McDermott, 3 Ireland Head of ICT and 3 IoT).



📍 GHG SAVINGS THROUGH REMOTE CONNECTIVITY MANAGEMENT

CKHGT offers remote connectivity management to its customers via a Connectivity Management Platform (CMP). The CMP fulfils a range of functions that can potentially lead to reduced GHG emissions versus traditional sensor management. These include: enabling the quick and more accurate identification and diagnosis of faults, remote resolution of faults in some cases (avoiding the need to deploy engineers in the field), avoiding postage of replacement SIMs when not required for fault resolution, and avoiding spiralling data usage (and associated energy consumption) that can at times be associated with faults. The CMP is also capable of 'waking' devices where a data connection has been lost, avoiding the need for it to be in an 'always on' state and avoiding the need to deploy an engineer to 'wake' the device onsite.

📍 SMART ELECTRICITY METERS IN AUSTRIA

3 Austria leveraged its NB-IoT network to provide connectivity for the installation of 15,500 smart meters to the largest electricity, gas and heat supplier in Lower Austria, bringing greater awareness of electricity usage to Austrian households. The rollout will be extended to 50,000 meters within the next two years.

ARTIFICIAL INTELLIGENCE AND DATA ANALYTICS

CKDelta is CKHH's dedicated artificial intelligence business, specialising in the design and development of innovative solutions using diverse and unparalleled data sets from across the Group and other partners. Through its suite of intelligent applications, CKDelta is building and licensing solutions to its clients that address a range of challenges, many directly supporting the transition to a more sustainable future.

It partners with leading businesses in a range of industries from electric vehicles, utilities, retail, ports and more – deriving actionable insights from data combined with bespoke modelling and analytics to deliver innovative and proven solutions. For example, CKDelta's ΔPriority intelligent application is helping UK Power Networks identify vulnerable customers as part of its 'Spotlight' innovation project.

A number of business units are also leveraging local data analytics expertise in combination with mobile and other data sets, to assist customers and create positive impact.

BUSINESS UNITS ASSISTING CUSTOMERS WITH DATA ANALYTICS IN 2023

3 SWEDEN

3 Sweden's Data Insights team collaborated with The Train Brain, using anonymised mobile data and analytics to develop mobility insights which can help local transportation companies transition towards more sustainable travel. It also collaborated with the Swedish Meteorological and Hydrological Institute and Ericsson for better prediction on place and timing of rainfall, which can be used for urban infrastructure management and agricultural management.

3 AUSTRIA

3 Austria continued to roll-out Drei Wetter which combines mobile communication with meteorology allowing for more precise weather forecasting.

3 DENMARK

3 Denmark's Data Insights team is leveraging aggregated and anonymised data on population movement to provide valuable insights and tools to support optimisation of public transport, electric vehicle infrastructure and energy systems.

3 IRELAND

3 Ireland assisted Limerick County council, providing anonymised and aggregated data via its 'Data Insights by 3' platform, for use by the council in urban transport planning with a view to reducing vehicle traffic and increasing pedestrian traffic in the city centre.

📍 CKDELTA INSIGHTS ENABLING SOCIALLY INCLUSIVE UTILITY PROVISION

Utility companies in the UK are obliged to provide safety, access and communication services to specified groups of domestic customers as part of Priority Service Register (PSR) licence provisions. UK Power Networks, the distribution network operator for London and the South East of England, is committed to optimising service for PSR, fuel poor and disadvantaged customers, using ΔPriority to identify and predict customers requiring additional support.

The CKDelta intelligent app provides three key insights to UK Power Networks:

- **Identification: ΔPriority utilises advanced clustering and a diverse range of datasets, creating a unique classification system for identifying vulnerable customers.**
- **Service: ΔPriority includes advanced machine learning capabilities to accurately classify customers' needs according to those outlined in regulation so that those heavily dependent on electricity are prioritised for supply.**
- **Communication: ΔPriority uses AI and data to increase engagement and combat digital exclusion with sophisticated engagement strategies employing methods like A/B testing.**

POSITIVE IMPACT PRODUCTS

CKHGT business units are increasingly offering products and services beyond connectivity and AI, that create better outcomes for people - particularly in relation to health and wellbeing, safety and security, education and digital inclusion. For example:

- **3 Austria** continues to scale its e-health services, Doctors Online, in partnership with Generali insurance and Instahelp, which offers online, face-to-face professional mental health support.
- **3 Denmark** has been working with the Danish Ministry of Defence on a national public warning system, in line with requirements under the European Electronic Communications Code. This sends out a push SMS both nationally and regionally, warning the public of danger, for example in the case of natural disasters, local fires and gas leaks.
- **3 Austria and Wind Tre**, in partnership with local energy companies, have extended their customer offering to include green electricity.

“”

3 Austria and Wind Tre, in partnership with local energy companies, have extended their customer offering to include green electricity.



DIGITAL SAFETY AND WELLBEING

As the digital world has grown, sadly so too has the misuse of the internet. Risks and issues faced by customers include security of personal data as they use their devices, potential exposure to offensive or abusive content, the threat of cyber-bullying, and the mental health impacts of social media use. CKHGT has a responsibility to play its part in protecting customers using the controls that are available, as well as to support customers in using the internet as safely as possible.

PRODUCTS FOR DIGITAL SECURITY

CKHGT continues to offer and expand its range of products and services to help protect the online safety and security of customers.

Wind Tre has a 2025 goal to support its business customers in being fully secure and protected with cybersecurity and data protection solutions. It offers Secure Web - a cybersecurity service addressing the needs of SMEs, and Wind Tre Family Protect and Security Pro - a suite of apps dedicated to help families navigate the web safely on both fixed line and mobile devices. By the end of 2023, more than 4 million individuals and businesses had adopted Wind Tre cybersecurity and safety solutions. During 2023,

Wind Tre strengthened cybersecurity for the business market with the acquisition of a majority investment in RAD, an Italian company specialising in cybersecurity solutions for businesses of all sizes.

In partnership with award-winning cybersecurity company Corrata, 3 Ireland offers a business mobile security solution, 3Mobile Protect, that protects mobile devices from phishing and malware and prevents data loss on company smartphones and tablets. This responds to the increasing number of mobile phishing attacks occurring outside of email, and the importance of raising standards of mobile security - which is often given less attention than laptop computer security by businesses.

A number of business units have also launched solutions that help to protect customers from scam phone calls.

DIGITAL SAFETY EDUCATION

A number of business units have developed digital safety programmes and resources available to parents, guardians, teachers and children, and have engaged in safety commitments and campaigns with partners to reinforce messages of safety and respect on the internet, in accordance with the needs of local markets.

““

CKHGT continues to offer and expand its range of products and services to help protect the online safety and security of customers.



3 HONG KONG PHONE SCAM PREVENTION SOLUTIONS

3 Hong Kong fully supports the Office of the Communications Authority and the Hong Kong Police Force in combatting phone scams, offering comprehensive mobile security services. This includes the ‘Incoming Calls Management Pack’ with two value-added services – ‘Anti-scam’ and ‘Call Block’, which assist customers to identify and block scam and nuisance calls. Moreover, in a bid to protect the elderly from phone scams, in 2023, 3 Hong Kong launched a service for customers aged 65 or above with free access to this phone scam protection service.

In 2022 Wind Tre launched a new, free service, ‘Please Don’t Call’, on the Wind Tre mobile app. This service identifies potential scam calls to the customer before they answer the call. Customers are able to report new scam calls that have not been identified by the service, as well as confirm identified numbers as trusted callers where appropriate. In 2023, this service was extended to include microbusinesses as well as residential customers and has been well received by customers. At the end of December 2023, approximately 1.7 million customers had activated and used the service at least once.



WIND TRE PROVIDES DIGITAL SAFETY EDUCATION FOR CHILDREN AND PARENTS

In 2018, Wind Tre launched the award-winning ‘NeoConnessi’, an education platform in Italy to help parents and children navigate the online world safely together. The platform provides articles, insights, technical tips, and advice on how to create a healthy balance of control and trust between parent and child. Experts and experienced parent bloggers also contribute to ensure content is best suited to the needs of parents.

With its fifth edition, as at the end of 2023, the educational programme has benefited over 1 million students, reaching more than 38,000 classrooms and training over 6,700 teachers since its launch. Wind Tre also added new content including the NeoConnessi Decalogue ‘10 steps for families aware and protected on Web’. Wind Tre also introduced NeoConnessi into its Connected Villages project both in schools and within the seniors’ community, providing over 200 hours of local training for adults and reaching 74 primary schools.



🔗 HELPING BUSINESS TO TACKLE IDENTITY THEFT AND FRAUD

In 2023, CKHGT continued to scale its innovative Digital Identity solution ‘Subscriber Intelligence’. Identity assurance is becoming increasingly important as society becomes ever-more connected. With levels of first-party and third-party fraud on the increase, the ability to verify a user’s identity is vitally important to address the impact of fraud on our financial and socio-economic wellbeing.

Subscriber Intelligence is an enterprise-grade ‘Application Programming Interface’ (API) product suite developed by CKH IOD that leverages CKHH’s mobile data assets for anti-fraud purposes. By providing real-time access to mobile operator data, we are empowering businesses across all industry verticals to achieve more effective fraud detection and prevention, business risk management and user identity verification.

Subscriber Intelligence comprises seven API products providing access to over 50 data attributes. With the service launched in three new CKHH telecommunications business units during 2023, it is now live across seven markets and is offered to market via 12 Channel Partners. Over 500 use cases have been deployed to date spanning all industry verticals including banking; finance; insurance; eCommerce; social media; ‘gig-economy’; gaming; utilities; healthcare; transport and government and public services.

The service continues to be expanded according to business insights and market needs to further build trust in the digital economy.



DIGITAL INCLUSION

Digital exclusion may occur for multiple reasons including lack of access to telecommunications networks or devices, or lack of digital skills. Research has shown that about 37% of the world's population, or 2.9 billion people, are still offline and excluded from the direct benefits of the global digital economy although levels of digital inclusion, and barriers to inclusion, vary widely across operating markets. Groups with higher levels of digital exclusion include older people, people with disabilities, and lower socioeconomic groups. CKHGT is working to address digital inclusion in a range of ways.

DIGITAL INCLUSION FOR SENIORS

One area of focus for CKHGT is reducing barriers for senior citizens. In pursuit of its goal to enable digitisation of seniors, Wind Tre has extended its leading 'NeoConnessi' digital safety and inclusion platform, to include 'NeoConnessi Silver' - dedicated to seniors. Its training course, video tutorials, articles and insights are designed to actively contribute to the digital inclusion of older people by training them on basic digital skills and strengthening the bond between generations on digital safety.

In several markets, CKHGT offers 'Doro' mobiles – easy-to-use devices specifically designed for seniors and other more vulnerable customers.

3 Hong Kong is committed to fostering the well-being of the elderly population in an increasingly digital society. It offers service accessibility for senior citizens through various initiatives such as its Lo-Yau-Kee Monthly Service Plans Sponsorship Scheme, the provision of 'Safety Phones' and data service sponsorships to cater to different customer needs. 3 Hong Kong also conducted a 'Mobile Application Workshop' for senior members of the Neighbourhood Elderly Centre of Yan Chai Hospital, teaching them to use mobile applications and providing them with anti-fraud advice.



HTHKH strives to cater to the diverse needs of the elderly by offering a range of services such as Lo-Yau-Kee Monthly Service Plans Sponsorship

“”

One area of focus for CKHGT is reducing barriers for senior citizens to access the benefits of digital technology.



REMOTE COMMUNITY ACCESS

CKHGT is helping to close the rural-urban connectivity gap that persists in many operating markets. **3 UK** has a target to reach 90% geographic coverage of the UK by 2027. It is working with the UK Government and other mobile operators on the Shared Rural Network, which will provide coverage for 280,000 additional dwellings and 16,000 additional kilometres of rural roads. In 2023, **3 UK** completed the construction of 100 sites, providing new 4G connectivity to over 37,000 premises, with coverage spanning 2,800 square kilometres.

In January 2023, Wind Tre and Iliad Italia S.p.A. signed a RAN sharing agreement to create a joint venture, Zefiro Net, which will roll-out network infrastructure in rural areas, creating synergies and reducing the costs of developing and maintaining network assets in those regions. A core initiative of Wind Tre's ESG Plan is also its 'Connected Villages' project.

WIND TRE CONNECTED VILLAGES

The Connected Villages project, launched in 2022 as part of Wind Tre's 2030 ESG Plan, is aimed at promoting greater digital inclusion and reducing the digital divide that exists between Italy's rural villages and cities.

The project works with villages across a number of dimensions including digital infrastructure, digital skills, and ongoing advice, bringing a holistic approach to digital inclusion. As at the end of 2023, 92 small villages had signed a Memorandum of Understanding for participating in the project. In September 2023, Wind Tre participated in the festival of 'Borghi più belli d'Italia' (most beautiful villages in Italy) as one of the main sponsors, hosting a panel session on the 'Connected Villages' topic.



Festival of 'I Borghi più belli d'Italia' (Italy's most beautiful villages)

DIGITAL INCLUSION FOR THOSE EXPERIENCING DISADVANTAGE OR DIFFICULTY

CKHGT recognises the important role it plays in providing digital access and skills for people experiencing disadvantage, and therefore helping to support access to opportunities, as well as helping people to maintain access to digital services in times of difficulty. Communities served by CKHGT continued to be impacted by economic and cost-of-living challenges, as well as difficulties due to the ongoing conflict in Ukraine, and natural disasters in certain markets.



In 2023, business units continued to respond to these challenges with programs to donate devices, SIM cards, provision of free or discounted mobile services, and zero-rating connection to certain websites to support digital inclusion in times of need.

DIGITAL INCLUSION FOR VULNERABLE CUSTOMERS

3 UK

- According to digital inclusion charity Good Things Foundation's latest Digital Nation UK Report, 1.5m people in the UK don't have a smartphone, tablet or laptop. Through its 'Reconnected' programme, 3 UK enables the donation of used devices, where they repackage them with unlimited data, calls and texts for six months. It partners with NGOs to give them a 'second life', benefitting those in need such as jobseekers applying for employment, students without internet access, or vulnerable people needing support. To date, over 16,000 phones have been donated. 3 UK extended its partnership with UK National Databank, run by Good Things Foundation, by doubling its pledge to 2 million GB of data, which will help an estimated 80,000 people to get connected over the next few years.
- 3 UK launched a pilot initiative, 'Connected Communities', to supercharge youth clubs across the UK, providing high speed 5G Wi-Fi, tablets and digital skills sessions delivered by 3UK Discovery teams. This project will help to empower young people with the tools and skills they need to succeed. Three youth clubs in Leeds and Birmingham are now connected with more clubs to come.
- 3 UK launched a new social tariff through its sub-brand SMARTY aimed at supporting its most vulnerable customers, as part of its ongoing response to the cost-of-living crisis. It is estimated that more than 4.2m households across the UK could benefit from this new tariff helping those that need it the most to stay connected.

3 AUSTRIA

3 Austria collaborated with the PCs for All association to collect used IT equipment from offices and employees, for refurbishment and donation to families in need. By the end of 2023, over 1,300 devices had been refurbished and donated, at the same time avoiding around 7 tonnes of e-waste.

3 HONG KONG

In 2023, 3 Hong Kong supported the Victim for Victim Project organised by the Tung Wah Group of Hospitals by providing 12-month free mobile service to project members. Workshops were also provided to help members learn the practical skills of using smartphones and mobile applications.

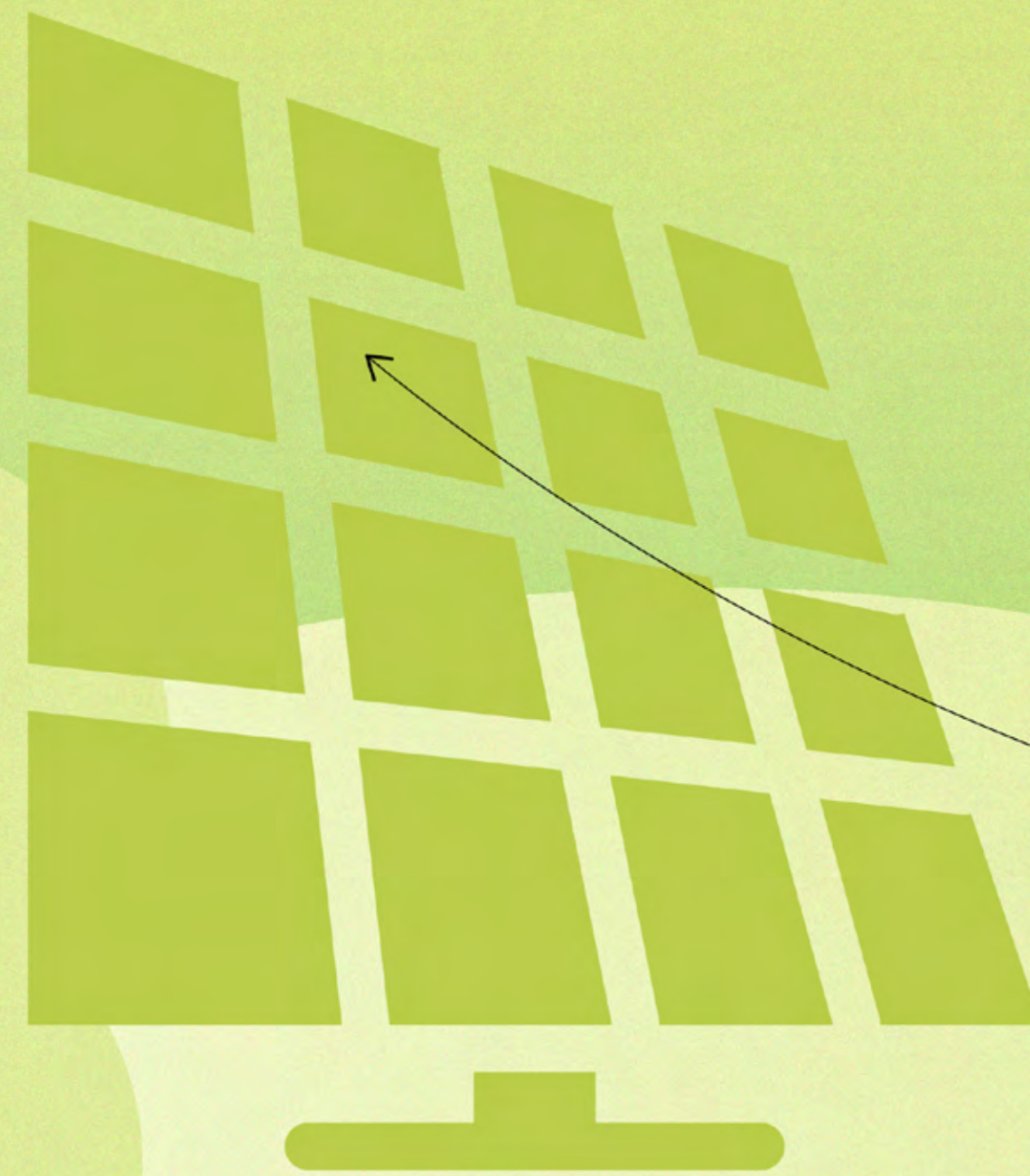
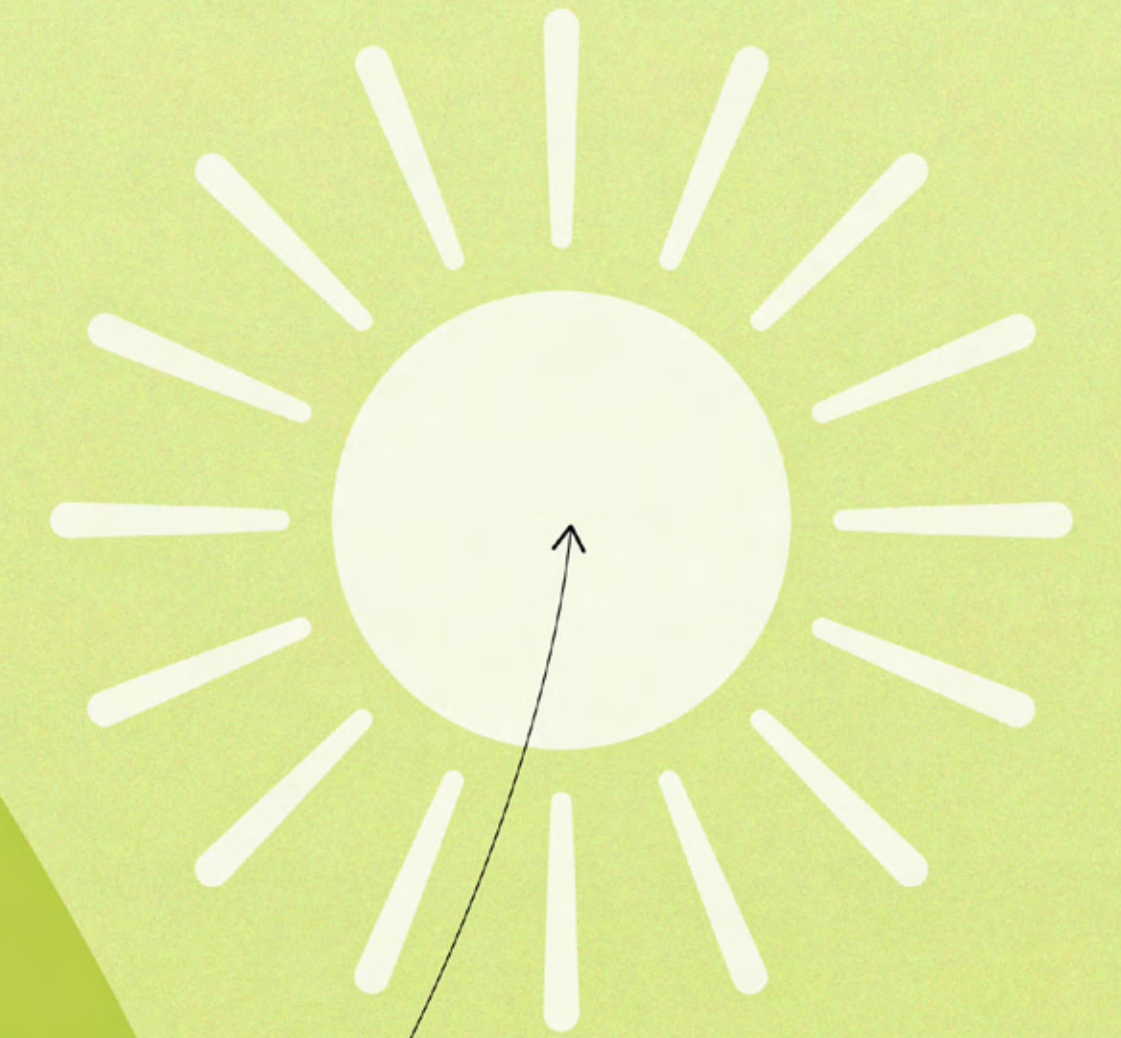
WIND TRE

Wind Tre supported its mobile customers in the aftermath of natural disasters that occurred during the year, including free direct calls to and from Turkey and Syria following the devastation that occurred in those countries, and additional data for certain mobile customers affected by flooding in Emilia Romagna and Tuscany.

A number of business units provided free text and calls to and from Syria and Turkey to support customers impacted by the earthquake in Turkey.

TAKING ACTION ON CLIMATE CHANGE

- CLIMATE CHANGE GOVERNANCE
- CLIMATE CHANGE RISK MANAGEMENT
- CLIMATE CHANGE SCENARIO ANALYSIS
- SCIENCE-BASED EMISSIONS REDUCTION TARGETS
- GHG FOOTPRINT AND PERFORMANCE
- GHG REDUCTION STRATEGY



CKHGT supports the internationally-recognised goal of limiting global warming to below 1.5 degrees Celsius and is aligned with the CKHH goal to pursue a path towards net-zero GHG emissions across its value chain by 2050. The unprecedented transformation required in our society, both to mitigate climate change and adapt to physical climate impacts, bring risks and opportunities for CKHGT.

CLIMATE CHANGE GOVERNANCE

The governance of CKHGT's climate strategy, including oversight of its climate-related risks and opportunities, follows the overarching structure of its wider sustainability governance which is outlined in the 'Sustainability at CKHGT' section of this report. Roles and responsibilities specifically in relation to climate strategy across CKHGT, are shown in Figure 7.

In addition to CKHGT level governance, each of the business units is supported by its own dedicated sustainability leads, governance structures and programs for management of sustainability and climate-related risks and opportunities at a business unit level.

CKHGT recognises the importance of comprehensive climate-related disclosures and reports annually to the CDP (formerly 'Carbon Disclosure Project'), maintaining its score of grade 'B' in its 2023 disclosure.

CKHGT regards GHG assurance as being an essential part of good climate governance and has obtained assurance of certain aspects of its GHG data by KPMG, for the 2023 financial year, as detailed in appendices A and B of this report. In March 2024, it also obtained assurance over selected 2020 baseline metrics as outlined in the CKHGT Greenhouse Gas Emissions Restatement 2020 ('the restatement'). The 2020 baseline has subsequently been recalculated, as reported in this document, to reflect a transaction in 2023 and a change in methodology for treatment of 3 UK's network-related emissions, in accordance with the GHG Protocol and CKHGT's baseline recalculation policy within its GHG Reporting Criteria. Further detail on this recalculation can be found on page 36 of this report. No external assurance has been obtained in respect of the recalculated 2020 baseline.

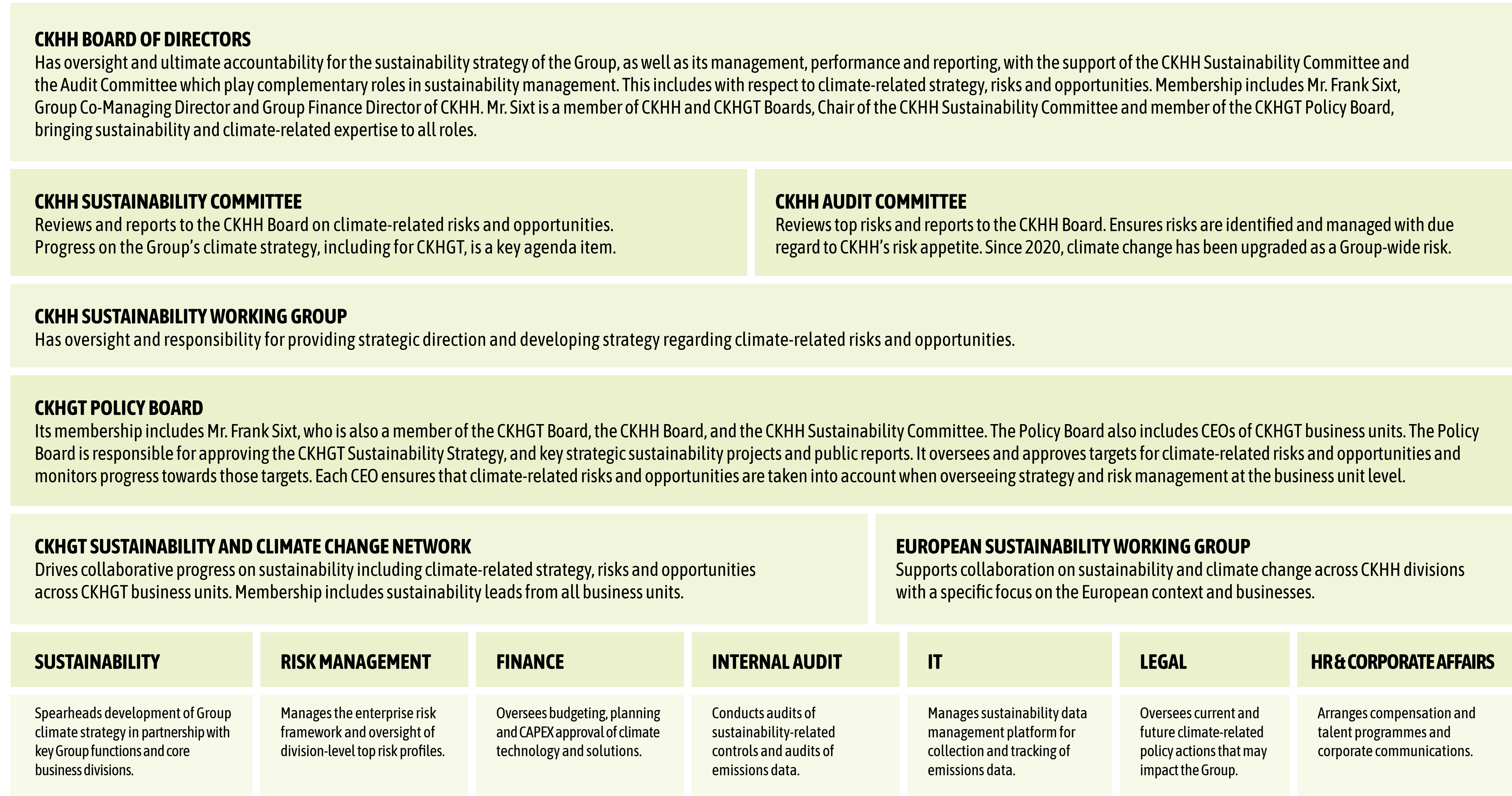
CKHGT's largest business unit, Wind Tre, has integrated climate-related targets into an ESG Composite Index which is linked to remuneration incentives for senior leaders, and is used to drive and monitor progress against its 2030 ESG Plan. A number of knowledge-sharing sessions have been held to share this best practice remuneration structure with other business units. At the CKHH Group level, remuneration policy is being revised and climate-related performance integration is underway with a target to have all CKHGT operations implementing a short- or long-term climate-related target in their incentive plans for 2025. Progress on this aspect for CKHGT will be included in its reporting for the 2024 financial year.

“

CKHGT regards GHG assurance as being an essential part of good climate governance and has obtained assurance of certain aspects of its GHG data.



FIGURE 7: CKHGT CLIMATE GOVERNANCE MODEL



CLIMATE CHANGE RISK MANAGEMENT AND SCENARIO ANALYSIS

CKHGT, as a member of CKHH, adopts an Enterprise Risk Management framework which is consistent with the Committee of Sponsoring Organisations of the Treadway Commission (COSO) framework. The framework facilitates a systematic approach to identifying, assessing, managing and monitoring risks, including climate-related risks, within the CKHH Group.

Risk management is an integral part of the day-to-day operations and management of CKHH and is a continuous process carried out at all levels of the CKHH Group, including CKHGT. Additionally, on a half-yearly basis, as part of the Group's Enterprise Risk Management framework, all business units, including CKHGT, are required to formally identify and assess the significant risks facing their businesses, with input from and review by, CKHH Executive Directors. Relevant risk information including key mitigation measures and plans are recorded in a risk register to facilitate the ongoing review and tracking of progress.

Since 2020, climate change has been given additional focus and included as one of the top risks in the risk register that could affect the CKHH Group's financial condition or results of operations.

The composite risk register together with the risk heat map, as confirmed by the Executive Directors, forms part of the risk management report for review and approval by the CKHH Audit Committee on a half-yearly basis. The CKHH Audit Committee, on behalf of the CKHH Board, reviews the report and provides input as appropriate to ensure effective risk management is in place.

In 2022, the CKHGT Climate Action Working Group (now the CKHGT Sustainability and Climate Change Network) initiated a project to identify climate risks and opportunities in the context of three scenarios, through a series of internal workshops, and in line with the recommendations from the TCFD. This scenarios tested both transition and physical risks under orderly and disorderly pathways, and included a 1.5°C scenario.

In 2023, CKHGT further prioritised climate-related risks and opportunities according to materiality with the assistance of a third party expert, and commenced analysis to better understand the significance of climate-related risks and opportunities over the short, medium and long-term.

CKHGT will continue to enhance its assessment and reporting on climate-related risks and opportunities in future years.

““”

Risk management is an integral part of the day-to-day operations and management of CKHH and is a continuous process carried out at all levels of the CKHH Group.

SCIENCE-BASED EMISSIONS REDUCTION TARGETS

In 2022 CKHGT received approval of its near-term science-based GHG emissions reduction targets from the SBTi.



REDUCE SCOPE 1 AND 2 GHG EMISSIONS BY 50% BY 2030, VERSUS A 2020 BASELINE.



REDUCE SCOPE 3 GHG EMISSIONS BY 42% BY 2030, VERSUS A 2020 BASELINE.

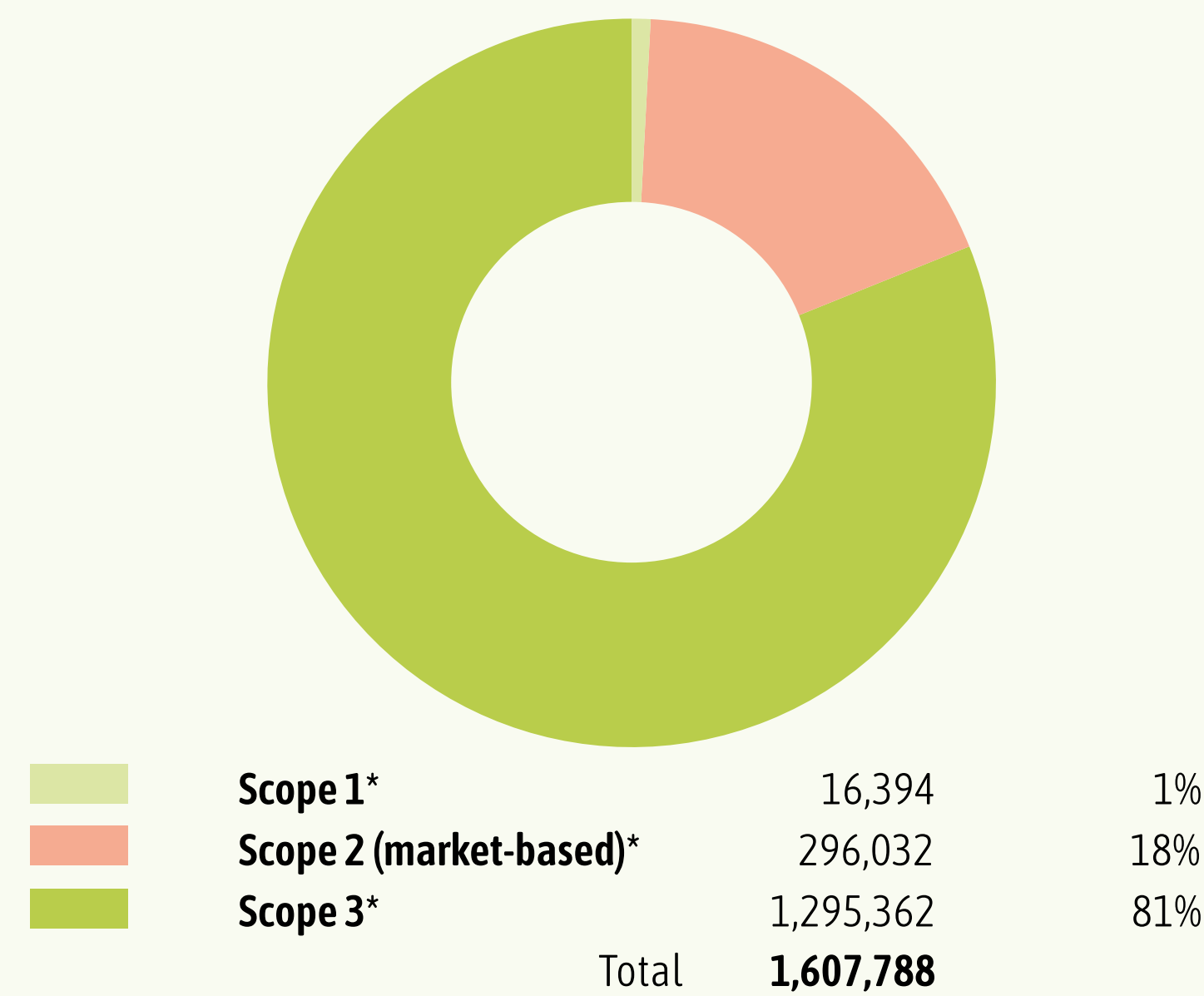
These targets align with the sectoral decarbonisation approach for scope 1 and 2 emissions agreed between the Information and Communication Technologies sector and the SBTi, and are consistent with the level of reduction required to keep global temperature rise to no more than 1.5°C.

Recognising the importance of setting long-term targets, in 2021, CKHGT set a target to reach net-zero in operations (scope 1 and 2) by 2040. In 2022, CKHGT formally committed to the SBTi to set a net-zero target in line with the Net-Zero Standard.

GHG FOOTPRINT AND PERFORMANCE

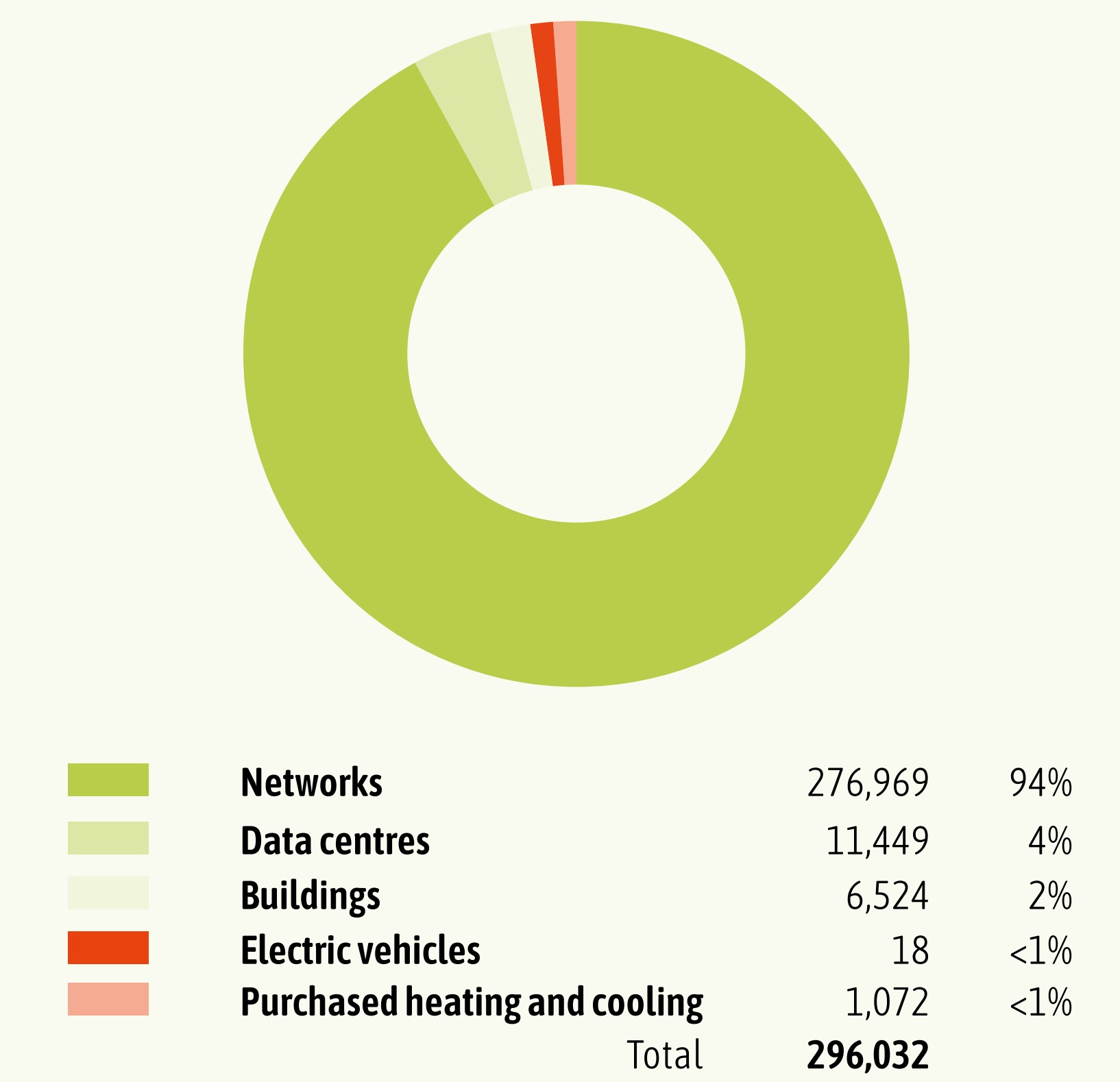
CKHGT’s 2023 value chain carbon footprint (scope 1, 2 and 3) is shown in figure 9. It has been prepared in accordance with the GHG Protocol. KPMG LLP was engaged to undertake independent limited assurance, reporting to CKHGT, using the assurance standards ISAE (U.K.) 3000 and ISAE 3410, for the selected GHG emissions that have been highlighted with an *. KPMG LLP’s full statement is available on [page 91](#) of this report. Detailed information on the reporting methodology can be found in the [CKHGT Greenhouse Gas Reporting Criteria 2023](#) published on the CKHGT website.

FIGURE 9: CKHGT’S 2023 VALUE CHAIN CARBON FOOTPRINT (tCO₂e)



Indirect emissions, or scope 3 emissions, are responsible for 81% of CKHGT’s total value chain GHG emissions. Indirect electricity (scope 2) emissions are responsible for 18% (using market-based measurement), of which networks contribute 94% (figure 10) and scope 1 emissions are responsible for less than 1%, largely related to emissions by its owned and operated fleet, fugitive emissions from air conditioning units, and natural gas heating.

FIGURE 10: CKHGT’S 2023 SCOPE 2 (MARKET-BASED) CARBON FOOTPRINT (tCO₂e)



2020 BASELINE RECALCULATION

On 3rd January 2023, Wind Tre completed a transaction, selling a portion of network infrastructure to Zefiro Net - a 50:50 joint venture with Iliad. Accordingly, 50% of the Zefiro Net scope 1 and 2 emissions (i.e. emissions from refrigerants and electricity consumption) have been accounted for in Wind Tre's GHG footprint (scope 3 category 15) for 2023.

In this context, and in accordance with both the GHG Protocol and CKHGT's recalculation policy as detailed within the [CKHGT Greenhouse Gas Reporting Criteria 2023](#) its 2020 GHG baseline has been recalculated retrospectively to reflect this transaction.

CKHGT's baseline has also been recalculated to retrospectively reflect a methodology change applied in 2023, whereby **3 UK** network-related GHG emissions have been included in scope 1 and 2, instead of scope 3 (where they were previously included in category 15 as an investment). This update was made following a review of the operating model and contract with **3 UK's** joint venture partner MBNL which concluded that this change in methodology better reflects the operational control that **3 UK** has over these network operations. Refer to the [CKHGT Greenhouse Gas Reporting Criteria 2023](#) for further information.

The overall effect of these recalculations has been: to decrease scope 1 and 2 emissions (market-based) by 13.2%, with the Zefiro

Net transaction contributing a decrease of 16.6% and the **3 UK** methodology change contributing an increase of 3.4%; and to increase scope 3 emissions by 1.5%, with the Zefiro Net transaction contributing an increase of 1.6% and the **3 UK** methodology change contributing a decrease of 0.1%. Table 1 shows the effect of these recalculations on CKHGT's 2020 baseline, and supersedes that

previously published in CKHGT's [GHG Emissions Restatement 2020](#). See [page 90](#) for the recalculated 2021 and 2022 GHG data.

All reported GHG data in this report, including performance data and commentary on reductions achieved, reflects this recalculated 2020 baseline.

TABLE 1: CKHGT 2020 GHG EMISSIONS DATA RECALCULATED TO RETROSPECTIVELY REFLECT ZEFIRO NET TRANSACTION AND CHANGE IN METHODOLOGY APPLIED TO **3 UK** NETWORK-RELATED EMISSIONS

GHG EMISSIONS	UNITS	CKHGT 2020 as previously published ¹	CKHGT 2020 recalculated
Scope 1 total	tCO ₂ -e	17,487	17,873
Scope 2 (market-based) total	tCO ₂ -e	459,648	396,316
Scope 2 (location-based) total	tCO ₂ -e	412,099	423,209
Total scope 1 and 2 (market-based) GHG emissions	tCO ₂ -e	477,135	414,190
Total GHG emissions intensity (scope 1 and 2)	tCO ₂ -e / revenue HK\$'000	0.005	0.004
Scope 3 category 3: fuel- and energy-related emissions ²	tCO ₂ -e	113,114	115,755
Scope 3 category 15: investments	tCO ₂ -e	17,652	40,094
Scope 3 total	tCO ₂ -e	1,659,382	1,684,465
Total GHG emissions (scope 1, 2 and 3) ³	tCO ₂ -e	2,136,517	2,098,655
Total GHG emissions intensity (scope 1, 2 and 3)	tCO ₂ -e / revenue HK\$'000	0.024	0.024

¹ Previously published in the [CKHGT Greenhouse Gas Emissions Restatement 2020](#).

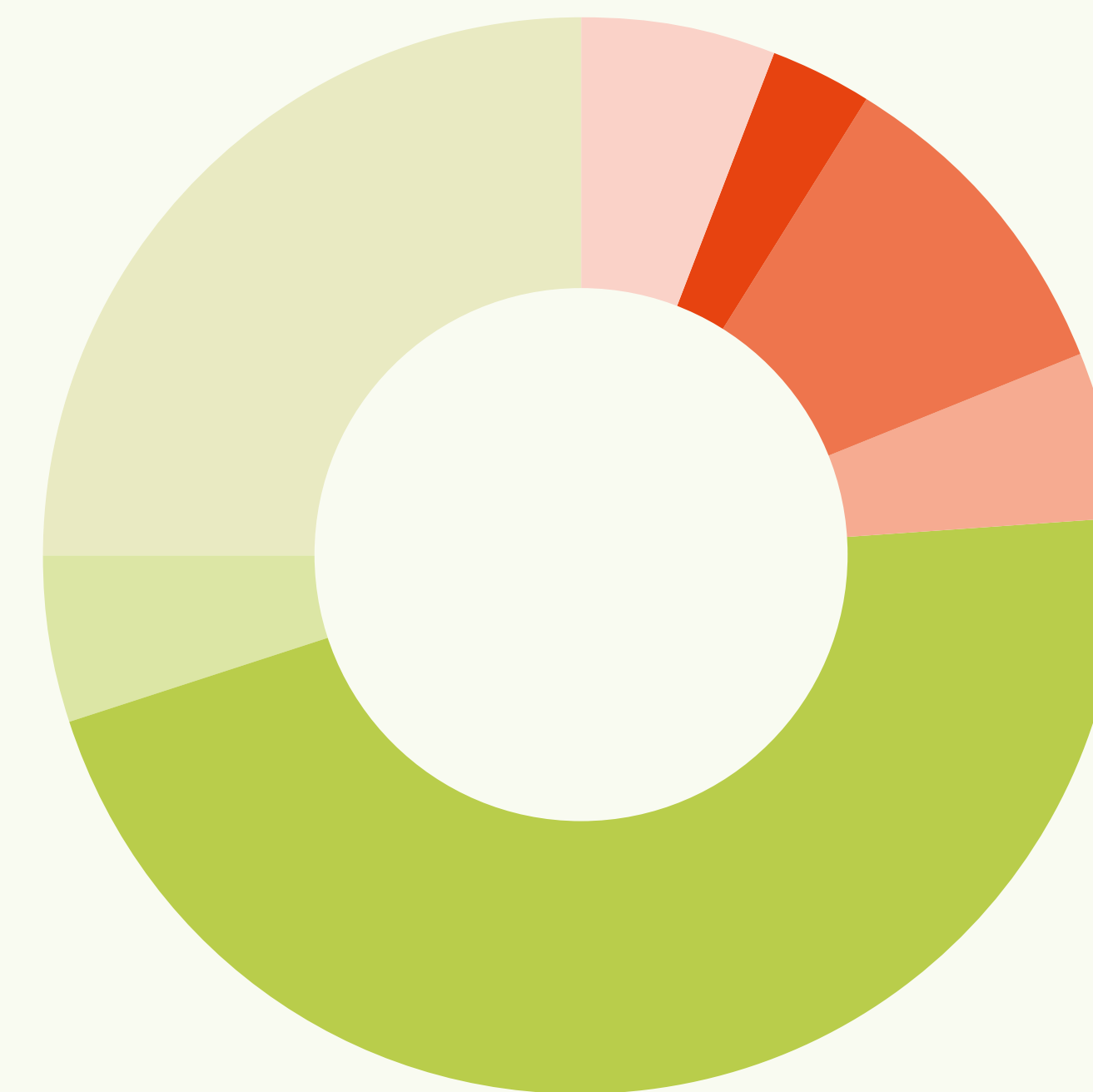
² A consequential change as a result of changes in the scope 1 and 2 activity data.

³ Using scope 2 market-based emissions.

The total scope 1, 2 and 3 footprint is distributed across business units (figure 11) in line with the different sizes of their networks and customer base, with Wind Tre naturally being the largest contributor (46%).

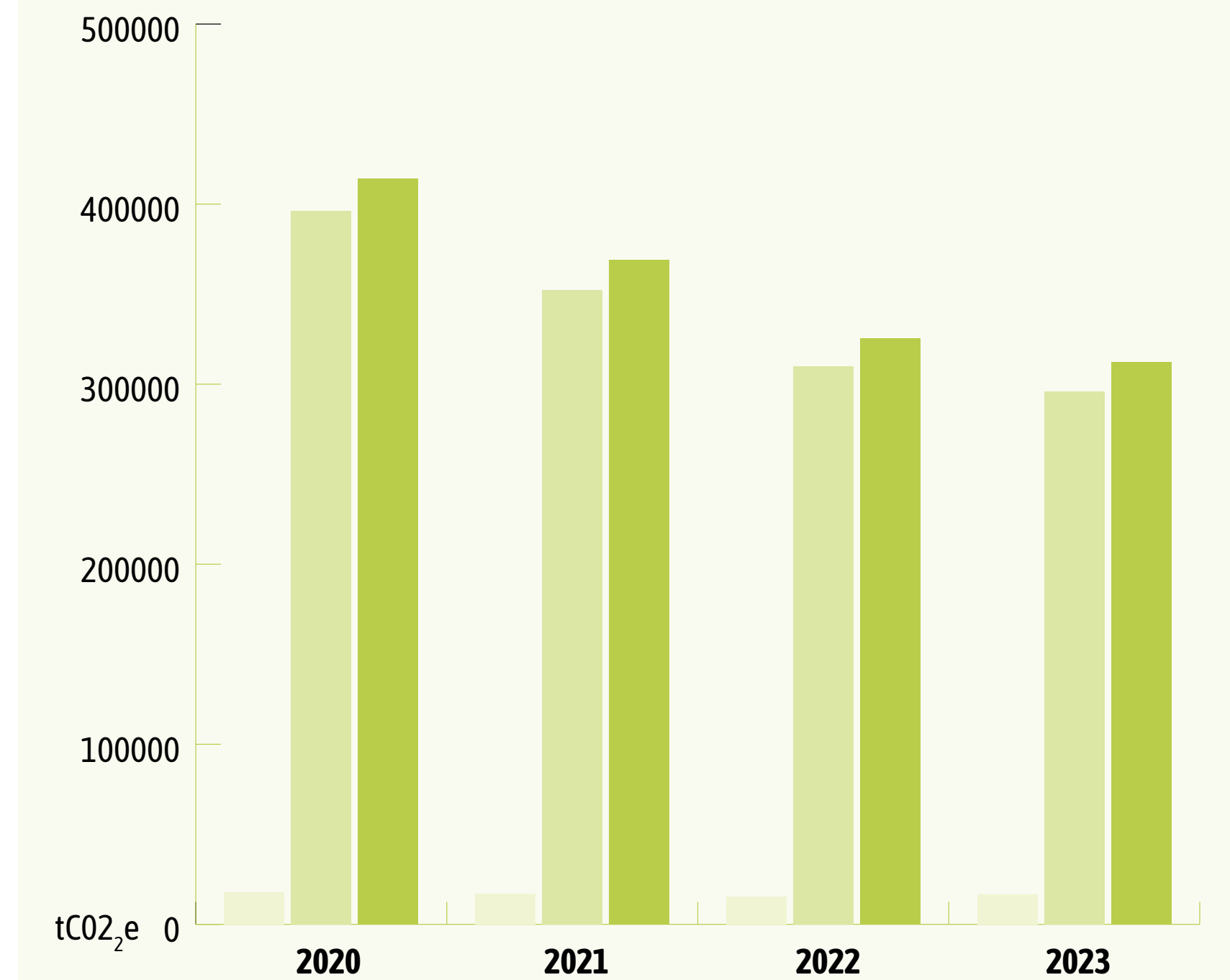
Total scope 1 and 2 emissions reduced by 4% in 2023 as compared to 2022, and 25% as compared to the 2020 baseline GHG footprint (figure 12), ahead of a linear path towards CKHGT’s scope 1 and 2 near-term science-based target. As for prior years, the main driver of the decrease in scope 1 and 2 emissions was the increased use of renewable electricity across CKHGT. In particular, Wind Tre sustained a year-on-year increase in renewable electricity coverage and 3 UK operated with a full year of renewable electricity supply for its directly procured consumption, after reinstatement of its renewable energy arrangement – which had been withdrawn by the supplier during 2022 due to the global energy crisis. A full discussion of renewable electricity procurement trends is provided in the section ‘Increasing Use of Renewable Electricity’.

FIGURE 11: CKHGT’S 2023 GHG FOOTPRINT (SCOPES 1, 2 (MARKET-BASED) AND 3) BY BUSINESS UNIT (tCO₂e)



	3 Austria	6%
	3 Denmark	3%
	3 Hong Kong and 3 Macau	10%
	3 Ireland	5%
	Wind Tre	46%
	3 Sweden	5%
	3 UK	25%

FIGURE 12: CKHGT’S SCOPE 1 AND 2 (MARKET-BASED) EMISSIONS PERFORMANCE (tCO₂e)

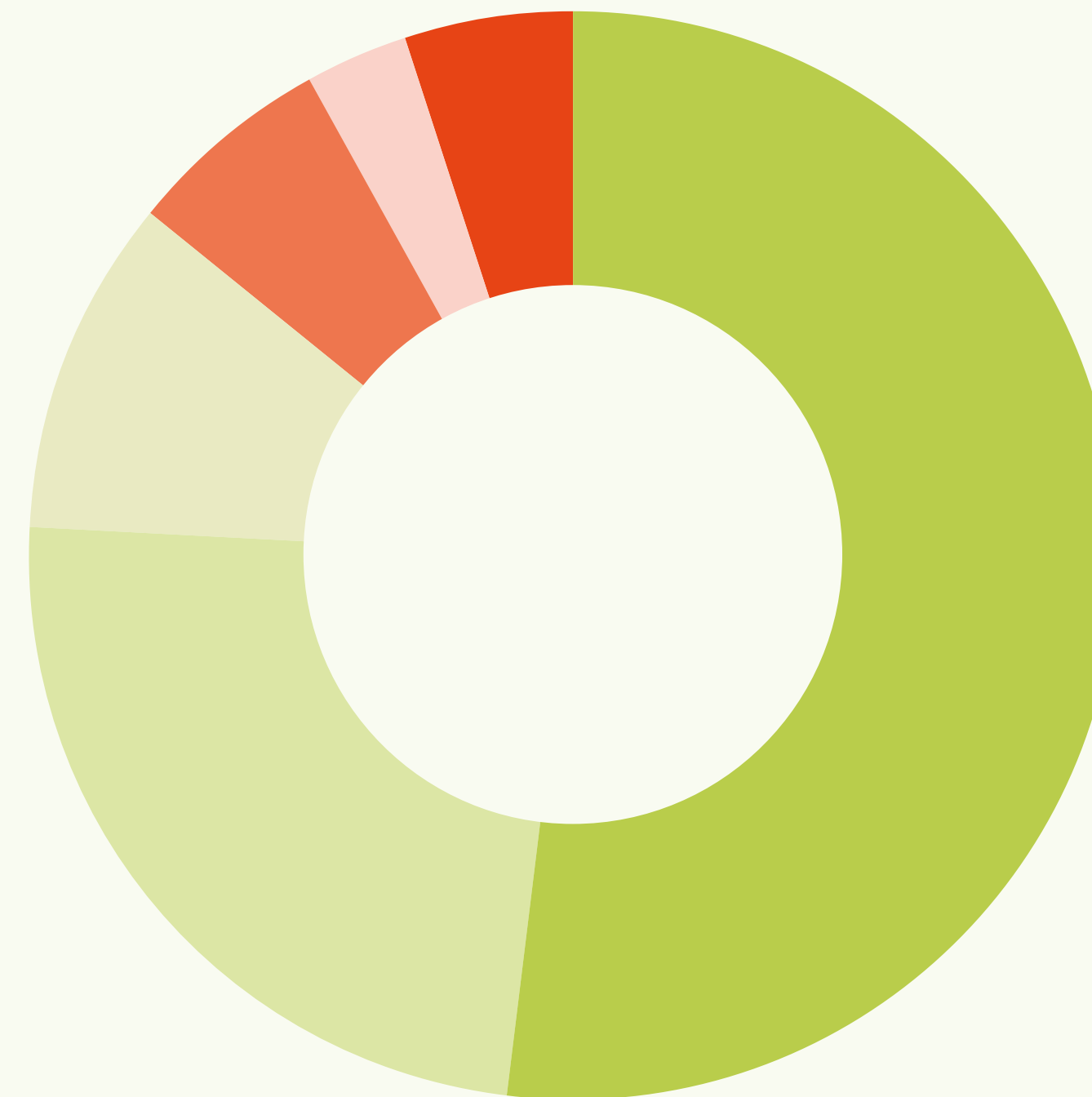


	RECALCULATED 2020	RECALCULATED 2021	RECALCULATED 2022	2023
Scope 1	17,873	16,876	15,509	16,394
Scope 2 (market-based)	396,316	352,120	310,014	296,032
Scope 1+2 (market-based)	414,190	368,996	325,523	312,426

As in previous years, the key contributors to CKHGT’s scope 3 carbon footprint (figure 13) were purchased goods and services (52%) and capital goods (24%). In 2023, the majority of the scope 3 emissions footprint continues to be measured using a combination of ‘environmentally-extended input output’ (EEIO) emissions factors and so is driven by spend, therefore while the scope 3 footprint decreased 7% from 2022, CKHGT does not consider this reflective of underlying performance. The footprint of 3UK has been calculated following a hybrid approach which is aimed at maximising the use of supplier-specific emission factors. This allows for a more accurate representation of the emissions related to purchased goods and services, and capital goods, as it captures the efforts made by 3 UK suppliers to reduce their Scope 1, 2, and 3 upstream emissions and also enables more informed and sustainable spending decisions. Looking ahead, CKHGT intends to extend this hybrid approach to other business units, such that the scope 3 GHG footprint can better reflect emissions reduction performance over time.

The GHG footprint of devices is measured using life cycle analysis (LCA) emissions factors, with a year-on-year GHG footprint reduction from devices of 8% category 1 (purchased goods and services) and 27% in category 4 (upstream transportation and distribution).

FIGURE 13: CKHGT’S 2023 SCOPE 3 CARBON FOOTPRINT (tCO₂e)



■ Cat.1: Purchased goods & services	672,394	52%
■ Cat.2: Capital goods	305,179	24%
■ Cat.3: Fuel and energy related activities	127,770	10%
■ Cat.11: Use of sold products	80,737	6%
■ Cat.15: Investments	43,809	3%
■ Other Categories	65,475	5%
Total	1,295,362	



GHG REDUCTION STRATEGY

GHG REDUCTION STRATEGY AT A GLANCE

CKGHT has identified the following ten key GHG reduction opportunities:

	RENEWABLE ELECTRICITY	<ol style="list-style-type: none"> 1. Purchasing of renewable electricity, for example through power purchase agreements 2. Deploying of on-site solar
	NETWORK ENERGY EFFICIENCY	<ol style="list-style-type: none"> 3. Upgrading to more energy efficient radio equipment 4. Implementing smart features for more efficient use of energy according to data traffic 5. Upgrading transmission networks including virtualising core networks and network services 6. Decommissioning legacy networks and equipment 7. Upgrading data centre cooling equipment 8. Implementing AI-driven data centre energy optimisation tools
	ELECTRIC VEHICLES	<ol style="list-style-type: none"> 9. Transitioning company fleets to electric and incentivising employee use of electric
	SUPPLIER ENGAGEMENT	<ol style="list-style-type: none"> 10. Engaging with suppliers to enhance data quality and reduce value chain emissions

During the year, 3 UK and 3 Ireland undertook significant work, supported by external advisors, to map out their decarbonisation strategies, including specific detail on implementation options, expected emissions reductions and costs.

🕒 CLIMATE TRANSITION PLANNING IN 3 UK AND 3 IRELAND

In 2023, 3 UK and 3 Ireland engaged a specialist external consultant to support with the development of a decarbonisation strategy covering scopes 1, 2 and 3 of the GHG footprint.

This project involved detailed analysis of the 3 UK and 3 Ireland activities and drivers of GHG emissions, involving documentation and data review as well as internal engagement. It also included advisory on GHG reduction options covering feasibility and cost effectiveness. As a result of this work, 3 UK and 3 Ireland are preparing a detailed decarbonisation strategy for presentation to its executive management which will inform activity in future years.

INCREASING USE OF RENEWABLE ELECTRICITY

Renewable electricity procurement forms a crucial part of CKHGT’s overall transition plan. All business units are either already using a significant proportion of renewable electricity or are actively monitoring and assessing opportunities to increase the share of renewable electricity in their energy supply.

The availability and cost-effectiveness of renewable electricity varies widely across business units based on the renewable electricity resources available in-country, the suitability of grid infrastructure for supply of renewable electricity to demand centres, and regulatory and market conditions.

In 2023, CKHGT as a whole was supplied with 61% purchased renewable electricity, as compared to 58% in 2022 and 46% in 2021. 3 Ireland and 3 Austria maintained their supply of more than 90% renewable electricity. 3 Austria plans to convert its remaining non-renewable electricity to renewable sources to over the next few years in line with its climate strategy.

3 Sweden achieved 78% renewable electricity consumption, which reflects all electricity that is directly procured, or procured through major telecommunication network partners. 3 Sweden has committed to increase annual sourcing of renewable electricity from 79% in 2022 to 100% by 2025, and to continue annual sourcing of 100% renewable electricity through 2030.

FIGURE 14: CKHGT RENEWABLE ELECTRICITY OVER TIME

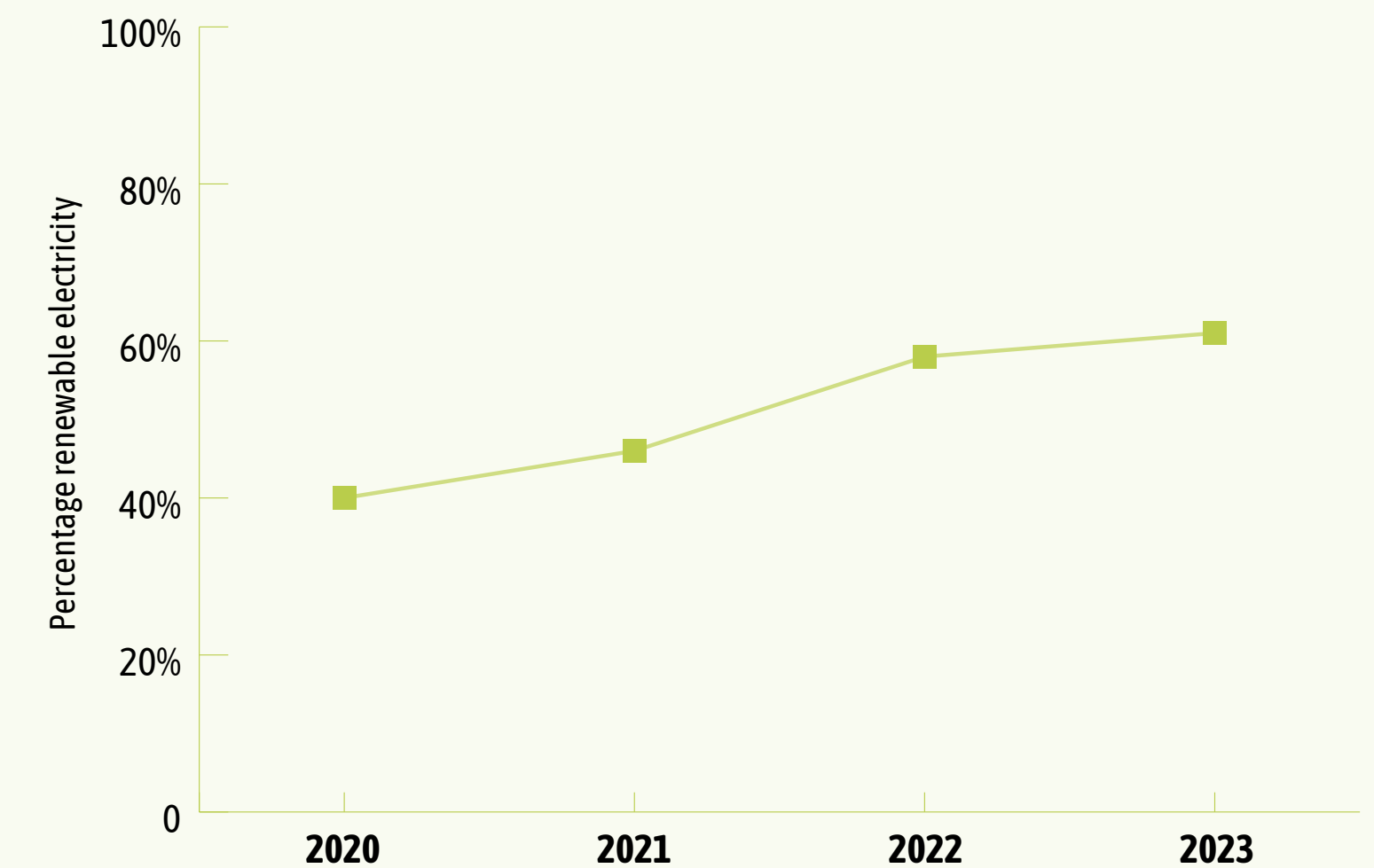
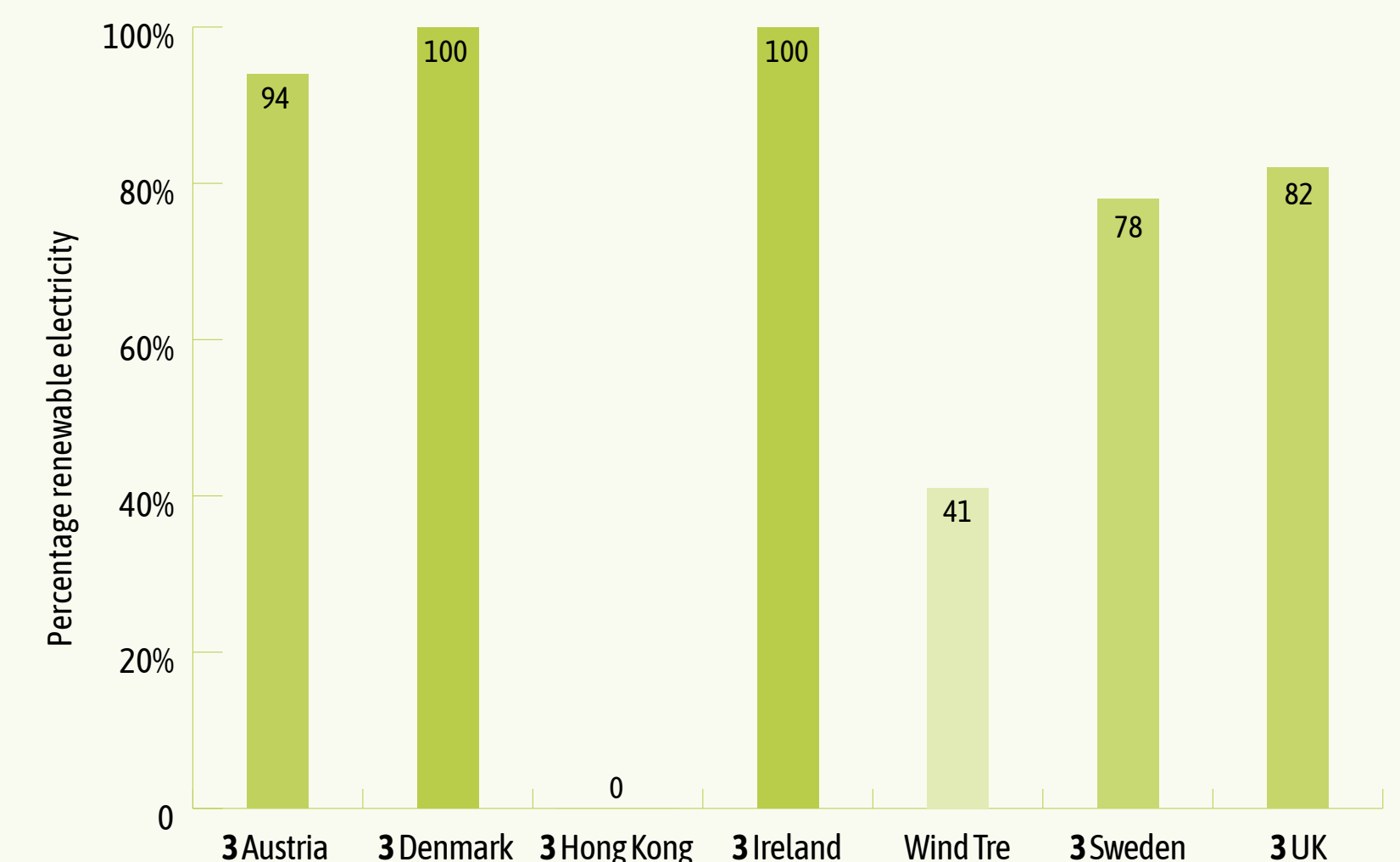


FIGURE 15: CKHGT 2023 RENEWABLE ELECTRICITY BY BUSINESS UNIT



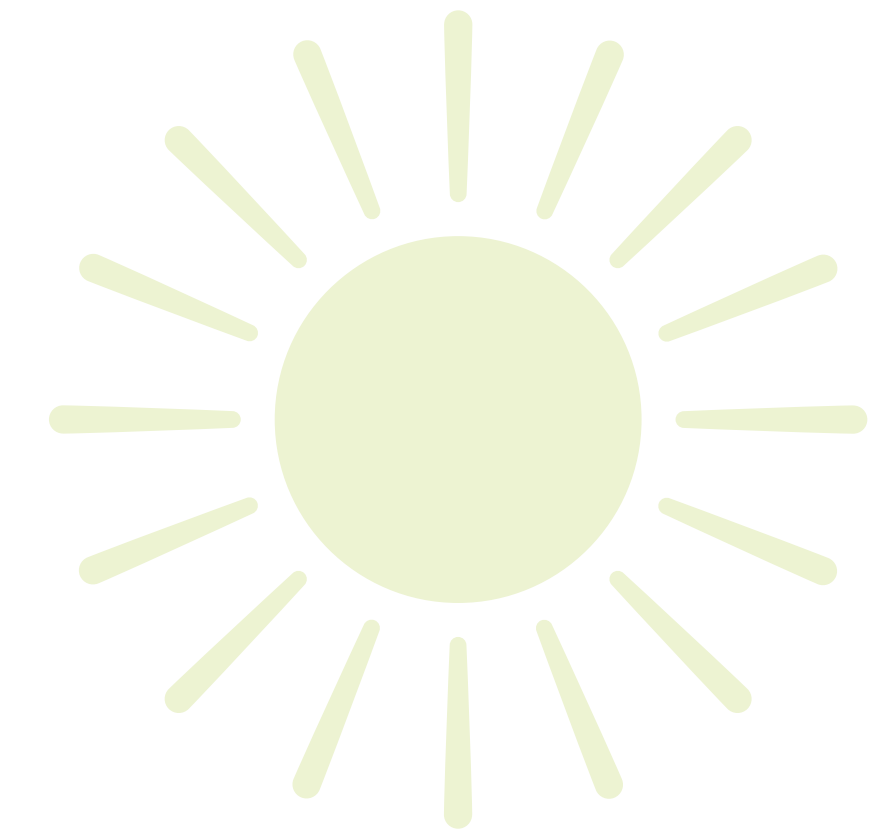
3 Denmark maintained 100% renewable electricity for a second year through its agreement with local company The 0-Mission – sourcing renewable energy certificates from a local solar park.

Wind Tre purchased energy attribute certificates, covering 41% of its electricity consumption - an increase from 37% in 2022, and making steady progress towards its target of carbon neutrality by 2030. Given its high demand for electricity, Wind Tre will continue to explore longer term renewable electricity procurement opportunities in coming years. **3** UK achieved over 80% renewable electricity in 2023 in total, including 100% of renewable electricity for the portion that is directly procured through its local utility arrangement.

On-site renewable energy is expected to play a limited role in meeting telecommunications electricity demand, due to the large volume of electricity typically required by the network as compared to the generation capacity of a typical small-scale renewable energy plant. Nonetheless, on-site renewable energy forms part of CKHGT’s overall approach to sourcing energy from renewable sources, where it is cost-effective and feasible.

During 2023, 811 MWh was self-generated from solar across Italy, Austria and Ireland. Following last year’s successful ‘proof-of-concept’ for small-scale solar installations on cell sites, **3** Ireland, in partnership with Cellnex, installed 90 mast sites taking the total installed capacity to 470kW.

3 Austria also continued to consume renewable electricity at its 411 kWp solar plant, developed at its headquarters in 2019, and has continued its proof-of-concept project on a number of mast sites. Wind Tre continued to self-generate approximately 350 MWh per annum from its 13 solar installations.



🌞 RENEWABLE ELECTRICITY IN DENMARK

3 Denmark continued to procure and benefit from the renewable electricity generated from a local solar park, ‘Vandel III’, covering the total volume of estimated electricity consumption, including for headquarters, retail stores and network. This agreement is with a small start-up, ‘The 0-Mission’ to support local, green entrepreneurship. The solar park aims to strengthen biodiversity by letting the grass under the panels grow organically and promote a richer habitat for native plants, insects and animals over time.



Vandel III, a utility scale solar photovoltaic park is located in the Municipality of Vejle in central Jutland, Denmark

INCREASING ENERGY EFFICIENCY OF THE NETWORK

Data traffic globally is forecast to grow by 20-30% per year for most regions in the next few years¹⁰ driven by factors including the ever-increasing demand for online digital services. In past years and through previous generations of telecommunications network technology, growth in data traffic has been a key driver of electricity consumption. However, infrastructure improvements and related efficiency gains have driven a decoupling of higher data traffic and emissions. The GSMA reports that in 2021, data traffic increases of 31% were met with associated electricity increases of just 5% and carbon emissions increases of 2%¹¹. A priority for CKHGT business units is to mirror this decoupling effect through its own investments.

All business units have continued to invest in network upgrades during the year, including implementation of 5G.

In 2022, **3** Austria was the first telecommunications company in Austria to deploy 5G in standalone mode for 1.3 million households and businesses – an important step towards realising the full energy efficiency benefits of 5G.

¹⁰ <https://www.ericsson.com/en/reports-and-papers/mobility-report/dataforecasts/mobile-data-traffic-growth-rate>

¹¹ <https://www.gsma.com/betterfuture/wp-content/uploads/2023/09/Achieving-Climate-Targets-Guide.pdf>

📍 5G AND ENERGY EFFICIENCY

5G is the 5th generation mobile network standard. It enables connectivity of machines, objects, and devices, at high speed, with ultra-low latency (minimal delay in sending or receiving the signal), greater reliability, and massive network capacity. The 5G standard is the first generation of mobile technology for which energy efficiency was considered as a design objective. 5G has the potential to be up to five times more efficient than 4G, per gigabyte of data traffic, driven by the following features:

1	2	3	4	5
Given the massive data capacity of 5G, it is most efficient when being used in high-traffic conditions. It is also most energy efficient when deployed in 'standalone' mode – whereby data can be delivered by 5G technology end to end. Where it is deployed in 'non-standalone' mode, 4G is required as an 'anchor', thereby increasing the overall energy required.	5G is the first fully virtualised network technology – which means that the core network is run as software (in the cloud) instead of on hardware, enabling more efficient use of physical infrastructure.	There is significant potential to use artificial intelligence for real-time optimisation of the network (expected to reduce power consumption by up to 15% under current systems).	Along with 5G, there is an opportunity to deploy more energy-efficient equipment, such as a new generation of batteries and more efficient power amplifiers. Further savings can be achieved through implementation of enhanced equipment cooling (e.g. free cooling, which utilises the cooler outside air temperature rather than traditional refrigeration).	The benefits of 5G are further realised where legacy technologies are switched off.

While 5G technology offers energy-efficiency improvements per gigabyte compared to legacy networks, the wavelengths used and specific use-cases of 5G will also require more sites and antennae requiring active intervention to mitigate any associated environmental effects.

📍 AI-ENERGY SAVING INNOVATION IN HONG KONG

3 Hong Kong will adopt an industry-leading AI energy-saving solution to significantly enhance energy efficiency of 5G base stations, aiming for a ‘zero-bit, zero-watt’ energy-saving goal. Approximately 400,000 kg of CO₂ emissions can be reduced every year after full deployment of this smart energy-saving solution at base stations.

📍 NETWORK ENERGY EFFICIENCY: 2023 ACTIONS

- **Upgrading traditional active antenna units to ‘multiple input multiple output’ units with significantly increased capacity for data traffic and passive cooling.**
- **Testing and implementing equipment features to support optimisation of network performance and energy efficiency, including ‘sleep modes’ - where system activity is paused either due to expected low-traffic conditions for a fixed period or in response to low-traffic conditions over a shorter time period, thereby reducing power consumption.**
- **Virtualising the core network and network services whereby software runs on generic, common hardware, enabling the decommissioning of power-consuming hardware that was previously required at each core network node.**
- **Replacing older less efficient network energy management equipment such as rectifiers.**

Additionally, within individual business units:

- **Wind Tre launched and integrated its AI-based Smart Energy Tool – originally developed in partnership with Boston Consulting Group. This tool uses statistical RAN monitoring to dynamically analyse and redirect data traffic so that equipment can be placed in smart sleeping, while maintaining overall service, thereby reducing the energy consumption of the network equipment.**
- **Wind Tre also launched a program to reduce the refrigeration load of network sites through on-site checks and analysis of required operating temperatures.**
- **3 Denmark and 3 Sweden continued with decommissioning of 3G capacity; preparation for 3G decommissioning commenced in some other business units.**
- **3 UK continued to deploy new core transmission network equipment across 19 data centres, requiring approximately 50% less space with approximately four times more capacity.**
- **3 Austria continued to implement, test and monitor the effectiveness of free cooling on ten network sites with results expected later in 2024.**
- **3 Hong Kong continued its ongoing efforts to enhance energy efficiency through adoption of radio access network energy saving features, reconfiguration of selected base stations to implement free cooling, deployment of highly efficient all-weather base station equipment for new outdoor sites and intelligent energy saving solutions for greater use of sleep mode during low-traffic periods, while still maintaining high quality mobile network services.**

DATA CENTRES AND OTHER PREMISES

Data centres are an integral part of mobile networks and broader IT support systems. In recent years there has been significant activity to drive cost and energy efficiency in data centres by ‘virtualising’ applications and enabling the decommissioning and consolidation of data centres and equipment.

Where business units retain data centres, they seek to optimise energy efficiency through upgraded cooling and other innovative power saving solutions.



Ekkosense: a data centre AI-enabled platform

🕒 AI-DRIVEN DATA CENTRE COOLING OPTIMISATION IN 3 UK

During the year, 3 UK realised the energy savings from its investment in ‘Ekkosense’, winning three awards in 2023: ‘Special Contribution to Improving Energy Efficiency’ at the Data Centre World Awards; ‘Best ESG Technology of the Year’ at the National Technology Awards; and ‘Digital Innovation of the Year’ at The Energy Awards.

Ekkosense is a data centre AI-enabled ‘software as a service’ platform that analyses temperature and cooling points in real-time to enable optimisation of cooling capacity. The software provides insights and visualisation to the operations team, helping to uncover areas of thermal risk that are not picked up by traditional building management systems. Implementation of the software across 3 UK’s four legacy data centre sites in just ten weeks delivered a 12.5% cooling energy reduction and an estimated annual saving of around £1.4 million in the first year.

🕒 CITYWEST DATA CENTRE ENERGY EFFICIENCY IN IRELAND

3 Ireland recently achieved the significant milestone of reducing its power consumption by 281,894 kWh or approximately 50% - which is the lowest power consumption in 15 years. This was achieved through the decommissioning and replacement of older power intensive and inefficient systems as well as the installation of cold aisle containment resulting in reduced cooling requirements.

🕒 DATA CENTRE ENERGY EFFICIENCY IN AUSTRIA

3 Austria has implemented the power monitoring software ‘StruxureWare DataCenter Expert’ from Schneider Electric to actively monitor and optimise power consumption at three locations. It has also commenced replacement of cooling equipment in data centres with ‘adiabatic coolers’ - closed-loop ambient air water cooling systems which have a higher heat transfer efficiency and are expected to achieve annual energy savings of approximately 728,000 kWh (up to 15-20%) as well as approximately 10,000m³ of water savings per year.

CKHGT also continues to invest in energy efficient upgrades for contact centres and offices. Wind Tre has motion sensors for lighting in office premises and building automation systems to regulate the use of air conditioning according to the external temperature. **3** Ireland has upgraded lighting in its Limerick contact centre yielding a 16% energy saving for that site. **3** Austria has installed energy management equipment at its head office and is upgrading regional offices with motion sensors, automated LED lighting, and automated heating and air conditioning. At the end of 2022, **3** Denmark moved its headquarters to a new office in the award-winning Carlsberg City District. This modern office includes automation technologies for energy efficiency including weather sensors, motion sensors and energy efficient lighting.

REPLACING FLEET WITH ELECTRIC VEHICLES

A number of business units are moving to a lower-carbon vehicle fleet through the adoption of electric vehicles. In 2023, Wind Tre increased its proportion of electric or hybrid vehicles from 12% to 26%, and has installed 41 charging points at Rome and Milan headquarters. **3** Sweden successfully achieved the transition of 76% of its vehicle fleet to electric/hybrid vehicles, surpassing its target to have 70% electric/hybrid vehicles by 2025. **3** Ireland converted approximately 30% of vehicle fleet to electric vehicles. **3** Austria is targeting a fully electric

vehicle fleet by the end of 2027 and hosts one of the largest electric vehicle charging parks in the city of Vienna enabling the simultaneous charging of 50 vehicles.

Employee incentives to encourage more sustainable transport options have also been introduced. **3** UK and **3** Ireland offer the 'cycle to work' employee benefit scheme, enabling employees to more cost-effectively purchase a new bike for commuting. In the reporting year, **3** Denmark ceased to offer financial support for company cars but instead introduced a policy of financial contribution towards alternative means of transportation.



““

In 2023, Wind Tre increased its proportion of electric or hybrid vehicles from 12% to 26%, and has installed 41 charging points at Rome and Milan headquarters.

ENGAGING WITH SUPPLIERS

Purchased goods and services and capital goods are the most significant categories within CKHGT's scope 3 emissions footprint. As such, CKHGT is prioritising suppliers according to materiality, and improving data quality such that emissions reductions in the value chain can be reflected in our scope 3 emissions performance.

Device purchases contribute 19% of our scope 3 GHG footprint and are measured using LCA data sourced from device suppliers. In 2023 we continued to engage with device suppliers, directly requesting LCA data to support our analysis. We were successful in increasing our device LCA coverage by 47% in 2023, positioning us more effectively for reflecting reductions where device LCA emissions go down over time. In 2023, the average LCA emissions footprint for devices decreased by 6%, but there were significant differences across our supplier base. In coming years we will continue to engage on enhanced data availability and supplier strategies to reduce the GHG footprint of devices.

At the end of 2023, CKHGT became a member of CDP Supply Chain, and will participate in the 2024 reporting cycle with a CDP data request issued to high priority CKHGT suppliers through the CDP portal. It is anticipated that this will assist with accessing higher quality data, enabling a transition to the use

of supplier-specific emissions factors for scope 3 footprinting, and will enable us to track which suppliers have GHG reduction targets and action plans, in alignment with our Supplier Code of Conduct.

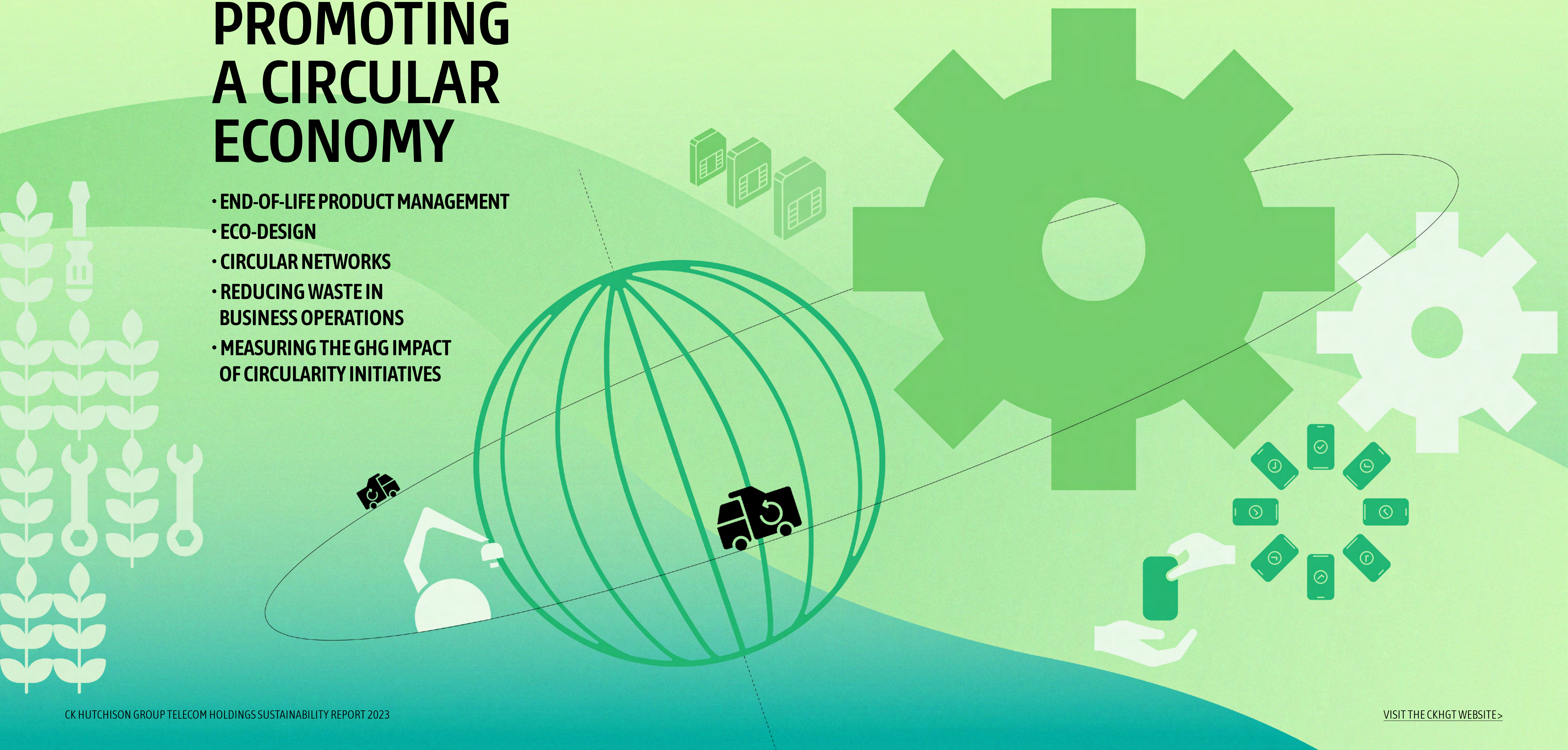
More broadly, business units are enhancing sustainable procurement processes with a focus on GHG emissions data and performance. For example, **3** UK and **3** Ireland use EcoVadis to review supplier social and environmental sustainability commitments including climate policies and performance. By the end of 2023, over 90% of third-party sourcing activities were covered by an EcoVadis assessment for **3** UK, as compared to 55% in 2022, and both **3** UK and **3** Ireland have a target to achieve 95% coverage in the near future. **3** Austria has updated its Supplier Code of Conduct in line with that of CKHGT, outlining its commitment to science-based targets and its intention to prioritise suppliers with a commitment to science-based targets or a GHG reduction plan. In 2023, Wind Tre updated its 2030 ESG Plan with a new Sustainable Supply Chain goal that will support a focus on supply chain emissions reductions, and deployed a new supplier ESG risk assessment platform called Cribis Synesgy, with 59% suppliers assessed in 2023.

““

Device purchases contribute 19% of our scope 3 GHG footprint... In 2023, the average LCA emissions footprint for devices decreased by 6%.

PROMOTING A CIRCULAR ECONOMY

- END-OF-LIFE PRODUCT MANAGEMENT
- ECO-DESIGN
- CIRCULAR NETWORKS
- REDUCING WASTE IN BUSINESS OPERATIONS
- MEASURING THE GHG IMPACT OF CIRCULARITY INITIATIVES



CKHGT supports the GSMA's vision for 2050 - 'a future where devices have as long a lifetime as possible, where they are made with 100% recyclable and recycled content using 100% renewable energy and where no device ends up as waste'. CKHGT recognises and supports the GSMA's waste hierarchy and is working to increase circularity through end-of-life product management, eco-design, and measures to extend the life of products in use.

END-OF-LIFE PRODUCT MANAGEMENT

The ubiquitous use of mobile phones and routers across the world, with 9 billion active devices predicted globally in 2030, brings associated environmental and social impacts from raw material extraction, processing, production and disposal.

Device consumption is a significant contributor to e-waste and a considerable portion is disposed of outside of formal waste management systems. Where specific regional data is available, official take-back rates of mobile phones rarely exceed 15%.

At the same time there is growing demand for refurbished devices. The global market for pre-owned smartphones surged to 309 million units in 2023, with more people

prioritising affordability and environmental responsibility. It is expected to reach 431 million units by 2027 and is predicted to be worth more than \$140bn by 2030.

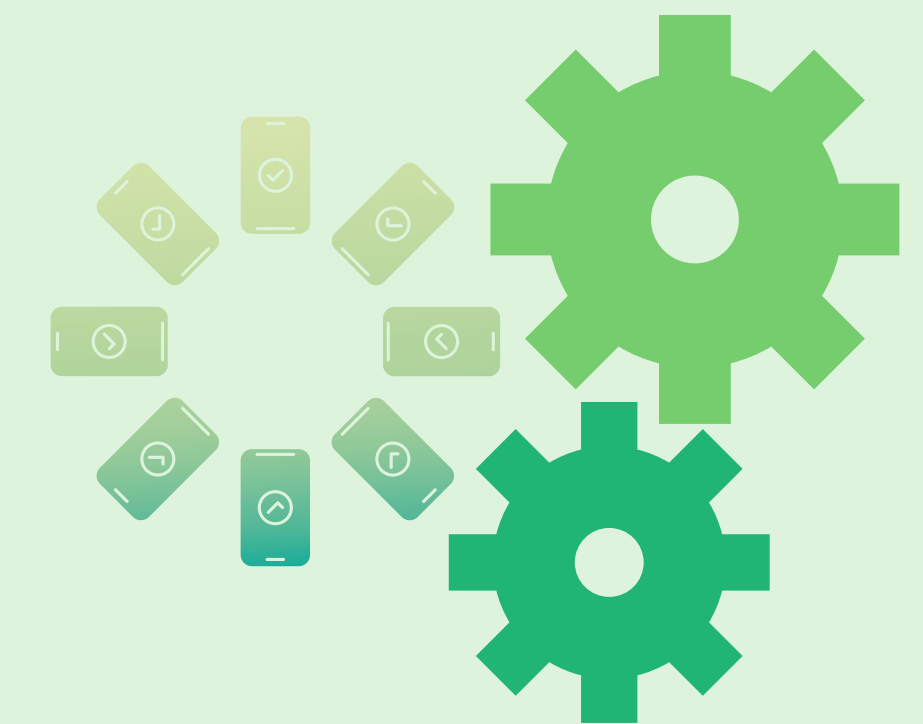
Most of CKHGT's major markets have device take-back arrangements in place – in many cases taking devices originally sold by any retailer. Partnerships are in place to support refurbishment and reuse of returned devices where possible, thereby extending their life and reducing the need for new production. Devices that cannot be reused, are responsibly recycled. In 2023, over 129,000 devices were taken back overall (not including donations) across CKHGT markets.

3 Sweden, Wind Tre and **3** Austria have launched and grown sales of refurbished devices, offering customers a more cost effective and sustainable alternative to new devices and meeting the demand in this segment.

A number of business units are also exploring more sustainable models of device 'ownership' such as leasing. During the year, **3** Sweden became the first CKHGT business unit to launch a device-as-a-service model to business customers, further enabling device refurbishment, reuse and recycling.

“

Partnerships are in place to support refurbishment and reuse of returned devices... extending their life and reducing the need for new production.



🌀 CIRCULAR BUSINESS MODELS IN 3 SWEDEN

3 Sweden continued to offer 3Återvinn, accepting the return of devices such as routers, mobile phones, tablets and smart watches, for reuse or recycling. Customers returning smartphones receive a discount on their existing mobile subscription - which makes the service beneficial from a cost, as well as sustainability perspective. During the year, the number of returned products remained in line with the previous year, with 94% reused and 6% recycled, avoiding an estimated 1,075 tCO₂-equivalent, as calculated by partner, Foxway.

3 Sweden expanded sales of refurbished mobile phones through the 3 Begagnat programme – launched in 2022. During 2023, to make it even easier for customers to make a sustainable choice, 3 Sweden expanded its sales channels for refurbished mobile phones and had targeted communication efforts, achieving 7% sales growth year-on-year.

Extending its circularity services even further, in 2023 3 Sweden launched ‘3Leasing’ (a device-as-a-service model) to business customers. This model offers customers more flexibility and lower costs with device trade-in value reflected in monthly payments, and returned devices are refurbished and reused, or recycled at the end of the lease period.



🌀 SCHEMES IN 3 UK

3 UK offers ‘Three Recycle’ whereby customers can trade-in certain phones, tablets and wearables for responsible reuse or recycling at end-of-life, and its Reconnected scheme which enables devices less suited to resale to be considered for donation. These schemes are integrated with every device being treated in the appropriate way according to its model and condition, helping to optimise for circularity and digital inclusion benefits. Approximately 3,000 devices were donated in 2023.



📍 3 IRELAND

In 2023, 3 Ireland launched a trade-in service so customers can return their old devices, enabling them to be reused and recycled, and allowing for the extension of useful life.

📍 3 DENMARK

3 Denmark extended its 'Byt-til-nyt' take-back programme to enable online trade-in of devices, thereby making it easier for customers to return their devices for responsible management. In 2023, 3 Denmark launched a router leasing product and prepared to further extend its circularity offering with refurbished devices.



📍 WIND TRE - ITALY

Wind Tre provides a comprehensive after-sales service for fixed and mobile devices, offering repairs through its network of over 500 centres throughout the country. In 2023, broken or faulty modems were replaced with refurbished products in more than 30% of cases for consumers and over 77% of cases for business customers. In 2023, approximately 4,800 smartphones of business customers with device protection underwent refurbishment. Moreover, Wind Tre continued to offer its 'Reload exChange' trade-in service that uses a diagnostic app to determine the trade-in value of any used device.

Wind Tre's sub-brand VERY mobile continued its partnership with Refurbed to offer a range of refurbished phones, with software licence and 12-month warranty. The Wind Tre brand continued to offer refurbished devices together with Enjoy, its partner since 2022.

📍 ONE-STOP HANDSET RECYCLING SERVICE IN 3 HONG KONG

3 Hong Kong offered its 'one stop' handset recycling service to customers enabling them to contribute to environmental protection through the Recycling Handsets and Accessories Programme.

Under the programme, they can dispose of old or unwanted handsets and accessories (such as batteries, chargers, headphones, earpieces, USB cables and stylus pens) in recycling boxes in selected 3Shops.

Items collected under this programme are passed on to the Computer and Communication Products Recycling Programme run by the government with industry partners and voluntary organisations. Equipment still in working condition is refurbished and donated to people in need, while other parts and useful materials are recycled.

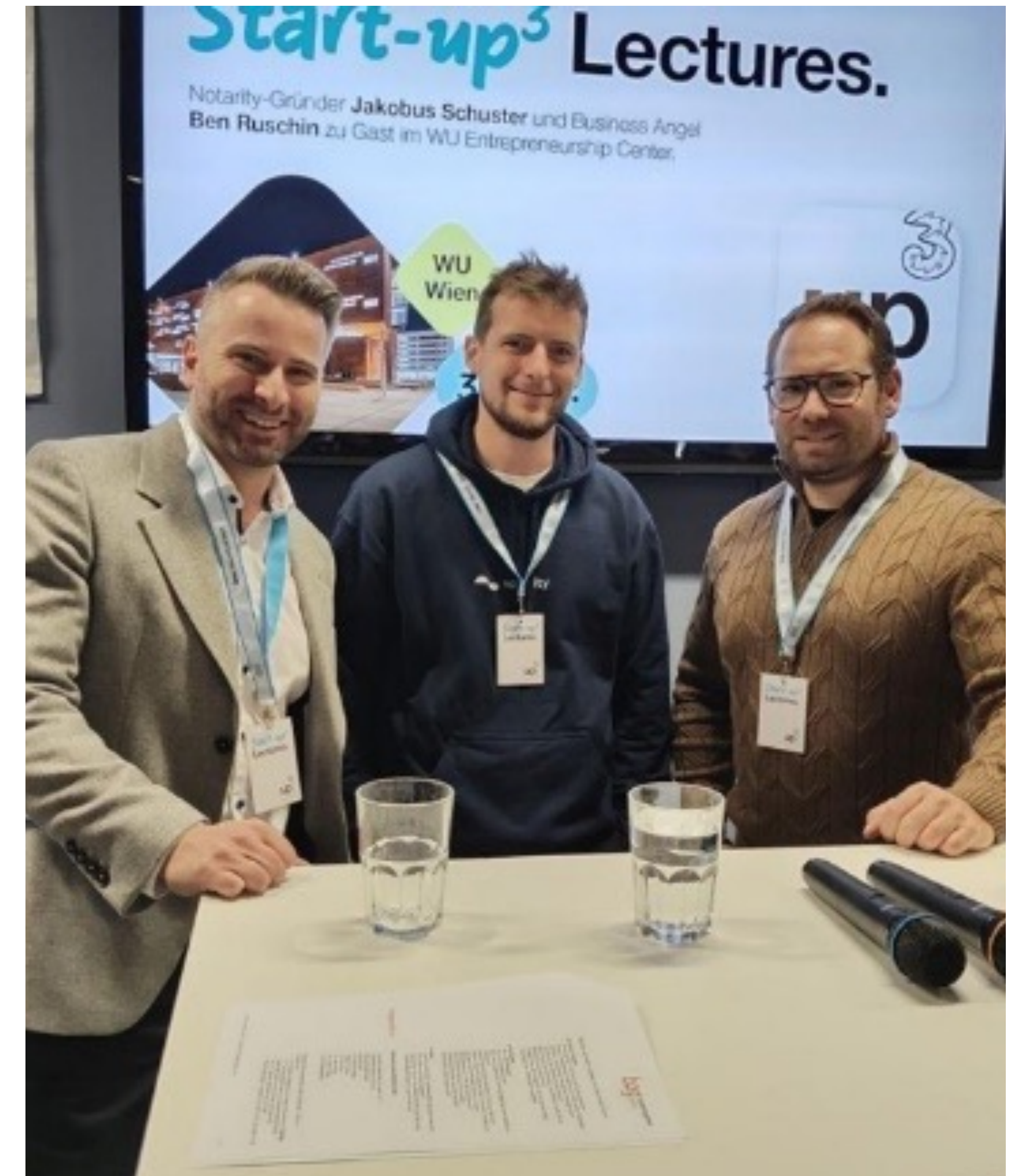
ECO-DESIGN

Business units are engaging with device suppliers on sustainability and eco-design of products and packaging of devices and accessories. This includes discussion on issues such as repairability and durability of devices, recyclable and recycled content, material and waste minimisation, and GHG emissions embedded in the product lifecycle through the production process.

They are also actively adding sustainable accessories to the product portfolio. **3** UK, **3** Ireland, **3** Denmark and **3** Sweden offer a range of sustainable mobile accessories made of full-grain leather or recycled plastic materials, through 100% carbon neutral production. **3** Denmark offers 100% plant-based, and 100% compostable phone cases made by A Good Company. **3** UK has continued its partnership with Tech21 offering cases that are 100% biodegradable and, together with **3** Ireland has introduced 'Panzer Glass Matrix' on-screen protection for the Samsung S24 family, made from 100% recycled plastic. **3** Denmark continues to offer its innovative accessory brand, Utility Project, with packaging that is plastic-free and certified by the Forest Stewardship Council.

The 'SIM' – or 'subscriber identity module' – is also a key opportunity for reducing waste and increasing circularity. Although SIMs are small in size, their volume and therefore overall impact across their lifecycle can be considerable. In recent years, CKHGT has innovated through its partnerships to reduce the size of the surrounding SIM-card, and introduced SIMs made with more sustainable materials and processes. In 2023 in partnership with Thales, both **3** Ireland and **3** Hong Kong introduced a SIM made from 100% recycled plastic through a carbon neutral production process – already used by Wind Tre, Sweden and Denmark. In Denmark this type of SIM represented 60% of all SIMs issued. In Hong Kong, most SIM cards are issued without packaging, and printed with QR codes linked to online information thereby reducing paper.

CKHGT anticipates that the eSIM presents a sustainable alternative to the physical SIM over the longer term. An eSIM enables the delivery of a digital profile to a chip on the device, without a physical SIM card, giving more flexibility and choice to customers while reducing plastic, emissions and electronic waste¹⁴. Throughout 2023, CKHGT focused on deploying eSim platforms and scaling eSim penetration in collaboration with key device suppliers in Europe. **3** UK and **3** Ireland both launched the eSim. **3** Austria continued to offer the innovative 'eSim only' mobile communications subscription 'up³'.



3 Austria's 'eSIM only' subscription offer – up³

¹⁴ A lifecycle analysis assessment conducted by Fraunhofer IZM and Giesecke+Devrient showed a 46% reduction in emissions for the eSIM in comparison with the SIM card. At: <https://www.gi-de.com/en/group/press/press-releases/independent-study-by-fraunhofer-izm-for-g-d-confirms-esim-as-an-environmentally-friendly-sim-solution>

CIRCULAR NETWORKS

Like all major mobile operators, upgrades to latest generation technologies lead to a considerable amount of waste - often containing critical raw materials such as gold and copper. Business units have individual arrangements for maximising circularity and responsible disposal of network equipment, which include maximising revenue streams from resale for parts or materials, and recycling.

For example, Wind Tre prioritises resale of network equipment through vendor buy-back arrangements and recycles unsold equipment for recovery of materials such as tin, lead, silver and gold. **3** Austria has an automated process for dismantling and logging parts for routers and network equipment in a dedicated warehouse management tool, before reusing parts internally where possible, and otherwise recovering materials through responsible disposal.

3 UK and **3** Ireland have targets aiming for 100% of decommissioned network equipment being reused or responsibly recycled. Both business units have established reuse and recycling partnerships to support the achievement of these targets, with the **3** Ireland partnership launched during 2023.

📍 PIONEERING LEAD ACID BATTERY RECYCLING IN HONG KONG

In 2023, 3 Hong Kong actively engaged in the Green Friends initiative, led by Hong Kong Battery Recycling Centre Limited. This initiative marks the first licensed facility in Hong Kong for the local recycling of waste lead-acid batteries, ensuring compliance with relevant regulations and guidelines. The facility, capitalising on advanced technologies, can recycle and repurpose over 90% of all collected batteries, exemplifying a strong commitment to sustainable practices and minimising environmental impact.

In 2023, 3 Hong Kong successfully recycled damaged or aged lead-acid batteries amounting to 62 tonnes, through this facility. Meanwhile, it continues its active search for an appropriate vendor to facilitate lead-acid battery recycling operations in Macau.

“““

3 UK and 3 Ireland have targets aiming for 100% of decommissioned network equipment being reused or responsibly recycled.

REDUCING WASTE IN BUSINESS OPERATIONS

Sustainable logistics and the reduction of paper-based documentation are other areas of opportunity to reduce material use and wastage, thereby contributing to circularity, and are a specific focus for certain business units.



🕒 SUSTAINABLE LOGISTICS IN AUSTRIA

3 Austria is committed to operating carbon neutral, digital and plastic-free logistics. The business reuses inbound shipping cardboard boxes which are made of 70% recycled materials for onward distribution to retailers, with excess quantities collected, pressed and resold as recyclable material.

It has also removed paper-based documentation for delivery notes, contracts and correspondence; its digital processes save over half a million pages of paper per year due to the elimination of delivery notes alone. Any electronic waste is resold to dealers via a certified disposal company. In addition, non-recyclable filling paper (to protect device contents) has been replaced with a recyclable alternative.

🕒 PAPERLESS BILLING IN 3 IRELAND

In 2023, 3 Ireland made the transition to paperless billing. Prior to the project approximately 550,000 pages of paper were consumed per month for billing - estimated as equivalent to 63 trees per month. This project was highly successful, achieving a 50% reduction in paper usage, with approximately 94% of customers opting for paperless billing.



MEASURING THE GHG IMPACT OF CIRCULARITY INITIATIVES

CKHGT has investigated current practice in reflecting the lifecycle GHG reduction benefit of circularity initiatives. While methodologies to measure these benefits are in their infancy, we have leveraged research available to reflect the lower carbon footprint from the sale of refurbished devices versus new devices, and the issue of eSIMs.

For refurbished devices this analysis has leveraged emissions factors from LCA calculations conducted by ADEME, the French Agency for Ecological Transition, according to the ISO 14040:2006 standard. For refurbished devices, this analysis replaced emissions from the device life cycle stages of raw materials and manufacturing of new devices, with those related to parts replacement only.

It also reflected the typical transportation of refurbished devices from Europe for second life, as compared to Asia for first life. The ADEME study saw a 91% reduced LCA emissions factor for second life devices, which we applied to our refurbished device portfolio (scope 3 category 1 purchased goods and services and category 4 upstream transportation). For 2023, these differences were applied as a trial for 1,000 refurbished devices in one business unit only. CKHGT anticipates extending this approach more

widely across the refurbished device portfolio in future years and is actively engaging with external stakeholders such as the GSMA to further industry approaches on this topic.

CKHGT also collaborated with its main supplier of SIMs to source LCA emissions factors relevant for a portfolio of over 25 million SIMs, with emissions factors varying per SIM type and manufacturing location (table 2). CKHGT observed that a lower emissions factor as compared to a default reference SIM is associated with a number of factors, namely: manufacture from recycled refrigerators; half-sized format; and manufacturing location closer to the point of sale than the default reference SIM. Combined, purchasing strategies can lead up to a potential 75% reduction in emissions per SIM versus a default reference SIM.

CKHGT is monitoring emerging research on the emissions footprint of eSIMs to ensure that the full lifecycle of these products is properly covered. According to currently available information, CKHGT understands that eSIMs have been assessed as having approximately 97% lower emissions than standard physical SIMs¹⁶.

Overall, CKHGT's circularity initiatives demonstrated a 59% reduction in emissions across CKHGT's SIM/eSIM portfolio, compared to emissions that would have occurred through sale of reference physical SIMs.

TABLE 2: LCA FACTORS OF SIMS (GCO₂-e) AS PROVIDED BY SIM SUPPLIER

Manufacturing Location	Size	Material	
		ABS (Acrylonitrile Butadiene Styrene, thermoplastic polymer)	Recycled plastic from refrigerators
Central America (CKHGT default reference SIM for the purpose of calculations)	ISO ¹⁴	105.2g	N/A
Central America	Half-ISO ¹⁵	72.3	N/A
Europe	ISO	49.1	N/A
Europe	Half-ISO	35.1	26.8

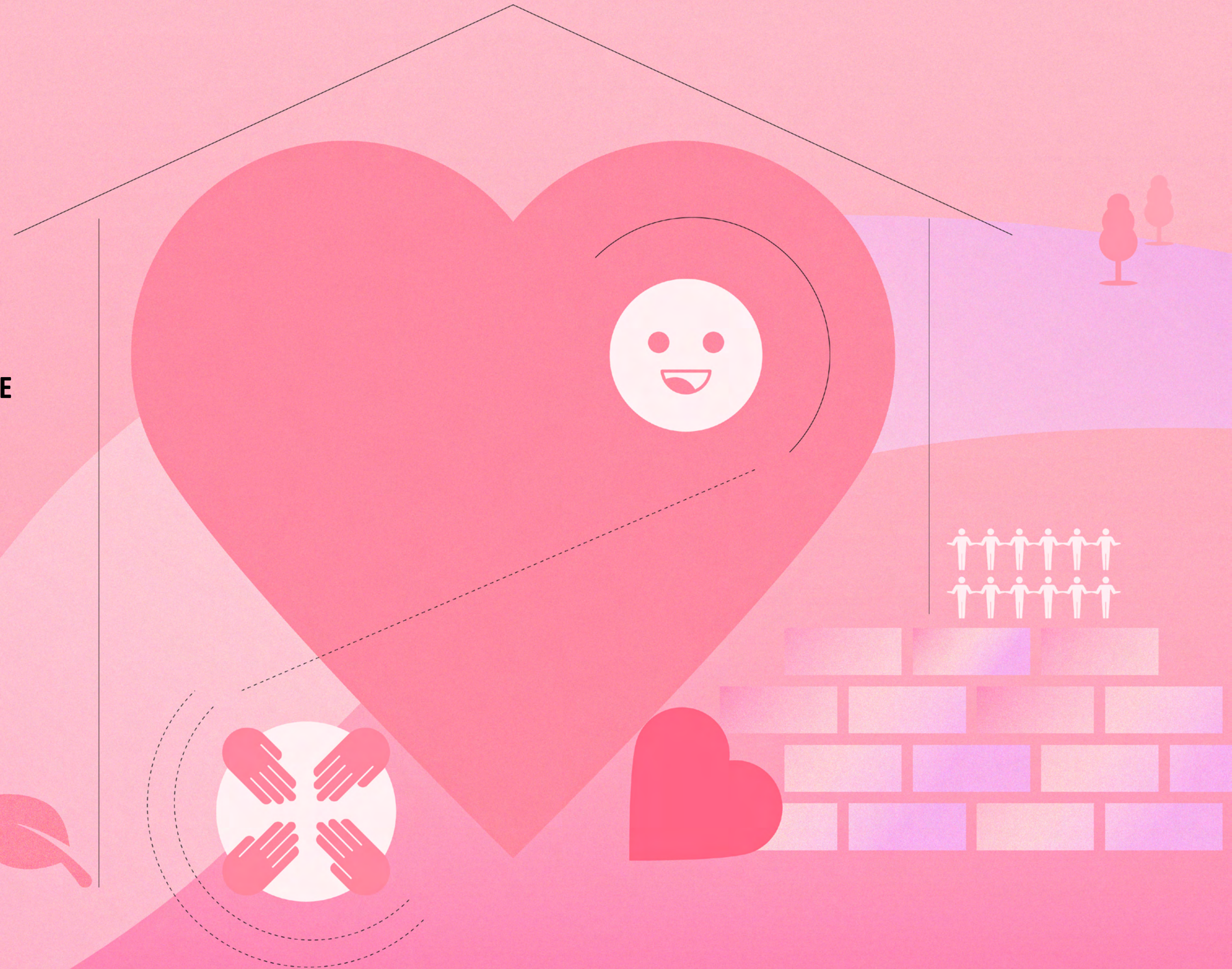
¹⁴ ISO ID-1 standard format (86x54 mm)

¹⁵ Half ISO ID-1 standard format (43x54 mm)

¹⁶ <https://www.gi-de.com/en/digital-security/connectivity-iot/mobile-network-operator/esim-management/green-esim>

CREATING GREAT PLACES TO WORK

- EMPLOYER OF CHOICE
- EMPLOYEE ENGAGEMENT AND FEEDBACK
- ATTRACTING DIVERSE TALENT
- BUILDING A DIVERSE TALENT PIPELINE
- PROMOTING EQUALITY AND INCLUSIVITY IN THE WORKPLACE
- EMPLOYEE LEARNING AND DEVELOPMENT
- EMPLOYEE WELLBEING



CKHGT aims to create workplaces that attract and retain diverse talent and where all employees are empowered and supported to be their best selves at work. It does so by creating inclusive and diverse workplaces, supporting employees in their wellbeing, creating an open feedback culture, and providing pathways for learning and development to support employee professional growth. Each business unit designs and implements fit-for-purpose human resources management approaches aligned with these outcomes and tailored to their respective needs.

EMPLOYER OF CHOICE

Investing in an inclusive and people-centred employer brand and value proposition is important for the attraction and retention of talent. In 2023, business units continued to invest in the employee experience, receiving recognition across markets.



📍 RECOGNITION RECEIVED IN 2023

3 SWEDEN:

- Top 10 ‘Sweden’s Best Workplaces’ by Great Place to Work® for 10th year in a row
- ‘Career Company 2023’ by independent organisation Karriärföretagen for 11th year in a row

WIND TRE:

- Top Employer Italy 2024 for the 6th consecutive year, recognised by the Top Employer Institute for its excellence in the development and well-being of people
- Diversity Leader in Europe 2024 by Statista and the Financial Times for its inclusive business practices
- EQUAL-SALARY Certification 2023 – EQUAL-SALARY Foundation

3 UK:

- The Times Top 50 Employers for Gender Equality 2023.
- Included in the list of 100 best places to work by the National Centre for Diversity

3 IRELAND:

- Investors in Diversity Gold standard in 2023 and shortlisted for the Diversity & Inclusion Award at the Ireland Chambers Sustainability Awards

3 HONG KONG:

- Asia’s Best Employer Brand in the 14th Asia’s Best Employer Brand Awards organised by Employer Branding Institute and World HRD Congress and Star of the Industry Group.

3 AUSTRIA:

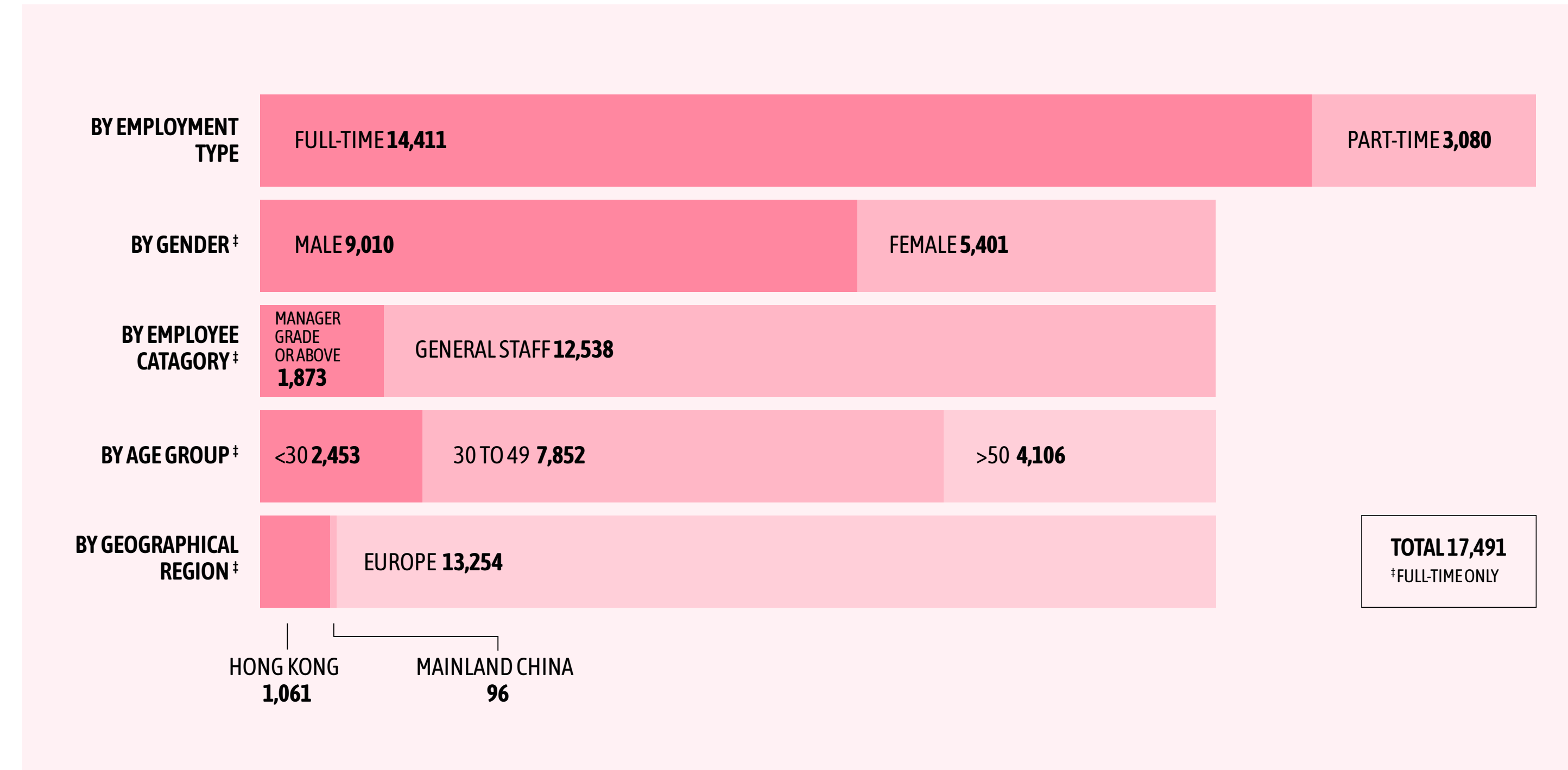
- ‘Work and family’ certification by the Federal Ministry of Women, recognising 3 Austria as a ‘family-friendly employer’
- 1st place ‘Employee Experience Champion’ by LSZ in collaboration with Maximilian Lammer consultancy, recognised for its working environment, culture, and employee digital experience
- ‘Top company seal’ from Kununu for the second time consecutively, reflecting ratings from current and former employees
- The ‘equalitA’ seal of approval for industrial promotion of women – The Austrian Federal Ministry for Digital and Economic Affairs

EMPLOYEE ENGAGEMENT AND FEEDBACK

An important aspect of creating great places to work is understanding and responding to employee feedback. This requires timely, data-driven insights to inform action plans, which are implemented and updated as circumstances and performance changes. Reflecting this, all CKHGT European business units conduct confidential and anonymous employee engagement surveys (twice-yearly at a minimum and for some more frequently) covering topics such as motivation, culture, leadership and personal development. Senior management reviews this feedback to understand strengths and issues highlighted by employees, and to plan improvement action. Managers also discuss findings and potential changes with their teams.

3 Austria for example, achieved a strong participation rate of 78%, with a score of 93% for satisfaction with the company as an employer. Wind Tre’s engagement survey, ‘#diciamolanostra’ (meaning ‘let’s have our say’), continued to have strong participation from employees, with an engagement rate of 78% in 2023 and confirming positive feedback on aspects such as employee empowerment, teamwork, and diversity and inclusion. **3** Ireland achieved a participation rate of 85% and engagement rate of 84%.

FIGURE 14: NUMBER OF EMPLOYEES



These employee engagement surveys are complemented with ad hoc surveys on individual topics. During the year for example, **3** Austria conducted a company-wide survey on employee remote and agile working needs. **3** Hong Kong enhanced its engagement with a diverse range of stakeholders through publication of internal and external ESG newsletters and a Town Hall meeting to facilitate internal communications and interaction following the pandemic.

Some business units have established dedicated employee groups for discussing employee issues. For example, **3** UK and **3** Ireland have each established an Employee Forum - a group of employees selected to represent their department and serve as a contact point through which employees can share feedback with senior leadership. The Employee Forum meets quarterly with the Chief People Officer and other members of the Executive and Senior Leadership Teams to share employee feedback, monitor progress against action plans, and ensure that the employee voice is considered when making key decisions.

Wind Tre runs a programme of Virtual Focus Groups to actively exchange views on a range of topics, this year holding a dedicated Virtual Focus Group session on internal communications and seeking feedback on a preview of the company strategy.

ATTRACTING DIVERSE TALENT

CKHGT understands that a successful workforce is built from diverse talent. It aims to recruit the best available talent, reflecting its commitment to diversity and inclusion, to support its wide customer base and the communities in which it operates.



Each business unit identifies its own skills gaps and labour needs within its local market. CKHGT recognises tight labour market conditions across its markets, particularly in customer service roles, and - being technology-based - the sector-wide challenges associated with attracting females to technical roles.

CKHGT continues to upscale its response efforts with business units organising programmes, widening engagement channels through social media, and partnering with educational institutions to attract talent with diverse backgrounds.

“”

CKHGT aims to recruit the best available talent, reflecting its commitment to diversity and inclusion, to support its wide customer base.



Addressing the specific shortages in customer service talent, CKHGT offers strong learning and development opportunities, and during the year implemented employee referral schemes and new advertising campaigns, including through social media. For example, the **3** Academy in Denmark enables employees to undertake short courses with European Credit Transfer and Accumulation System (ECTS) credits – supporting them in their personal growth and career progression while continuing to work at **3**.

3 Sweden offers a sales and service excellence programme for sales and customer service employees, with 662 employees upskilled at the end of 2023. **3** Sweden ran campaigns on TikTok to raise awareness of opportunities in its sales and technology departments among female candidates and launched a dedicated wellbeing program for customer service employees.

3 Ireland introduced a part time pilot program for attracting and retaining customer service staff, with radio and newspaper advertisements in the local Limerick area and recruitment of 34 staff into part-time contract roles at the Limerick Customer Experience Centre. **3** Ireland also launched a new commission structure for its Customer Care, Business Care and Telesales agents in the Experience Centre with cash incentives for sales.

3 Austria expanded its talent attraction efforts through cross border recruitment campaigns, providing benefits such as full

remote working and relocation support for employees. It also introduced apprenticeship programs including a new program, aiming to recruit young professionals into mathematics, information technology, natural sciences and technology (MINT) roles.

3 Hong Kong continued its efforts to attract new talent by implementing the Graduate Trainee Programme - through which 12 university graduates were recruited in 2023. In addition, **3** Hong Kong offers internship opportunities to undergraduate students interested in pursuing careers in telecommunications, enabling them to broaden their horizons through practical experience and engagement in various business projects.

BUILDING A DIVERSE TALENT PIPELINE

CKHGT's business units have initiatives connected with local schools and universities to raise the profile of careers in STEM subjects – at the same time raising their profile as diverse and inclusive technology employers and building the longer-term pipeline of STEM talent.

For example, **3** Ireland and Trinity College Dublin have developed a STEM scholarship partnership which is funding

the creation of 25 Scholarships for Women in STEM over five years, starting in 2022. The partnership also seeks to tackle the challenge at a systemic level by funding two posts within the Trinity Access Programme that will be dedicated to improving the accessibility of maths in Ireland's school system. **3** UK partnered with, sponsored and advertised a number of roles on the Women in Tech Job Board.

Wind Tre collaborates with numerous universities, implementing education and hiring programs focused on female talent.

ADVANCEMENT OF YOUTH STEM AND AI EDUCATION

In 2023, **3** Hong Kong supported a capstone project from the University of Hong Kong focusing on exploring potential business and customer insights in artificial intelligence and machine learning. It also supported an art exhibition organised by one of the secondary schools in Hong Kong at the Hong Kong Polytechnic University. The exhibition showcased art pieces, fashion designs and STEM projects designed by students.

PROMOTING EQUALITY AND INCLUSIVITY IN THE WORKPLACE

CKHGT recognises the value of embracing diverse perspectives, experiences and ideas, with a workforce that reflects the diversity of the customers and communities it serves, and the importance of providing equitable and inclusive working environments for its employees.

CKHGT is committed to promoting and protecting equal opportunities. In line with the Human Rights Policy and Code of Conduct, CKHGT works to maintain workplaces that are free from discrimination or harassment on the basis of race, colour, national or social origin, ethnicity, religion, age, disability, sex, sexual orientation, gender identification or expression, political opinion, or any other status protected by law. It handles all reports of impropriety and misconduct in accordance with the CKHH Whistleblowing Policy.

INCLUSION AND DIVERSITY LEADERSHIP

Business units have inclusion and diversity policies and programmes suited to their local needs and circumstances.

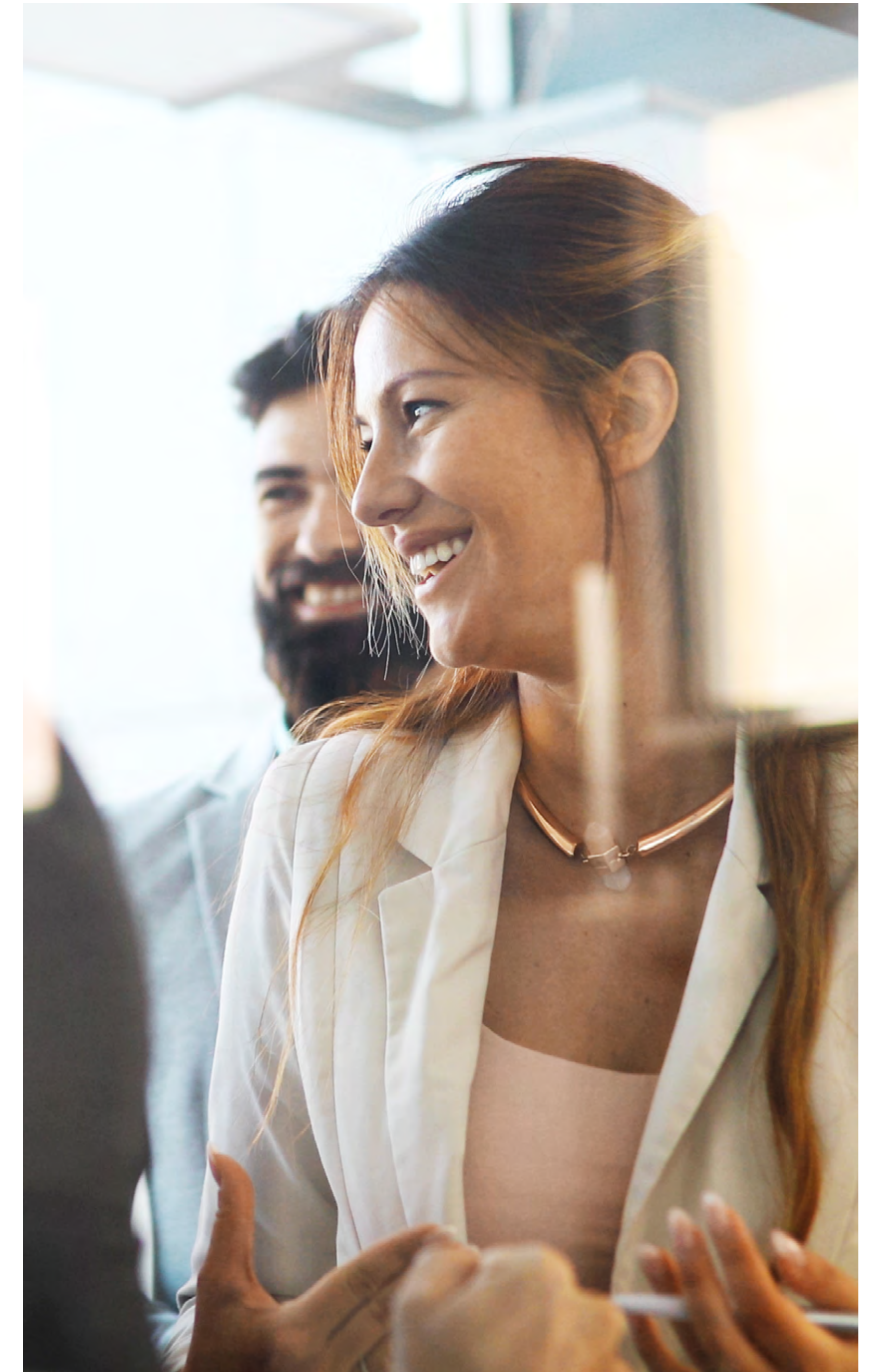
Most have put in place a dedicated steering group or working group to oversee their inclusion and diversity approach, with executive sponsorship, and a dedicated senior staff member

or team with responsibility for driving progress – often the Head of Human Resources or a diversity specialist within the Human Resources team.

For example, the Diversity, Inclusion and Belonging Steering Committees of **3** UK and **3** Ireland are sponsored by the Chief Portfolio and Change Officer and General Counsel respectively, and there is a Diversity, Inclusion and Belonging Team responsible for delivery. In 2023, **3** Sweden rebranded its Diversity Council as the ‘Close the Gap Council’ and initiated a series of activities related to inclusion, equality, and diversity. Wind Tre has a dedicated Diversity and Inclusion Manager with responsibility for defining and driving implementation of the strategy.

EMPLOYEE RESOURCE GROUPS

The business units often have employee resource groups, creating the opportunity for like-minded people to exchange ideas, share experiences, and build meaningful relationships in a supportive community. For example, **3** UK has networks Pride, Ethnic and Cultural Diversity, Women and Accessibility. Wind Tre has a ‘GENERATIONS 4 INCLUSION’ teamwork initiative involving employees with a range of diverse perspectives. In 2023, it launched ‘WeProudly’ - a dedicated LGBTQ+ section within the company intranet, and a collective project on ‘human language’, that involved more than 350 people in 48 teams defining an inclusive language company manifesto.



3 Austria has a 'DREiversity' community of engaged employees from different departments, with events during the year covering topics such as a gender pay gap and refugees in Austria. **3** Sweden has a 'Close the Gap' forum which implements engaging initiatives on inclusion topics, such as inclusive language and behaviours.

GENDER EQUALITY

The gender balance across CKHGT is 63% male and 37% female, reflective of the nature of CKHGT as a technology-based business, and due to the fact that there are fewer women in senior leadership positions.

To redress imbalances, **3** UK, **3** Ireland, and **3** Sweden have established 50:50 gender balance targets for leadership roles. **3** Sweden is additionally targeting a 50:50 gender balance target across all employees by 2025 and a gender balance of 60:40 (male:female) for every department individually. **3** Austria has a target to increase female representation in management from its current 25%, to 30% in 2025, and to achieve balance in the longer term. **3** Denmark aims for at least 40% representation of both genders on the board of directors, and within the senior management team, and other management, by 2025.

In addition to its target of 50:50 balance for all internal promotions, Wind Tre has committed to increasing its share of women in executive positions by 25% by 2025, (compared to its 2020 baseline). It has also linked gender diversity in hiring and pay practices with executive compensation together with the other goals of its 2030 ESG Plan.

To support the achievement of gender balance targets, business units have developed and implemented action plans, including targeted communications and recruitment campaigns for women, changes to recruitment processes to reduce bias, and leadership development programs for women. For example, **3** UK and **3** Ireland have introduced gender-neutral language in role advertisements, balanced interview panels, and unconscious bias training for hiring managers. **3** Ireland has additionally introduced anonymised CV screening. **3** Austria has trained staff to include gender-neutral and inter-cultural language in job advertisements.

In 2023, **3** Hong Kong achieved a gender balance of 41% female and 59% male, with female proportion increasing from 39% for 2022.

SEAL OF QUALITY FOR ADVANCEMENT OF WOMEN IN AUSTRIA

3 Austria has a strong focus on raising awareness and visibility of inclusive practice and was awarded the 'equalitA' seal of approval for industrial promotion of women by the Federal Ministry of Labour. In 2023, it launched the new Ada Growth app for supporting professional development with a focus on females and held a successful, interactive female Empowerment Workshop.



GENDER PAY GAP REPORTING

CKHGT welcomes the legislation on mandatory gender pay gap reporting that is relevant for a number of business units, and is supportive of actions that can be taken across its businesses to create gender pay equality. In 2023, Wind Tre was certified by the EQUAL-SALARY Foundation for the second year, demonstrating its equal pay for women and men. This follows its success in 2022, when it became the first telecommunications company in the world to obtain this certification.

3 UK has been reporting on its Gender Pay Gap since 2017.

3 Ireland reported on its Gender Pay Gap for the first time in 2022. Both business units have action plans in place to reduce gaps. Their focus on avoiding bias in recruitment is expected to enable the recruitment of more women into higher paid technical roles, and they are focused on equal opportunities for development through mentoring and internal management training.

3 Sweden conducts annual salary reviews to identify any unexplained pay gap between women and men and make adjustments where appropriate.

EMPLOYEE LEARNING AND DEVELOPMENT

Structured talent development programmes are in place across CKHGT aiming to address the skills development needs in each local market. These are supported with performance management systems enabling employees to set objectives and receive feedback, in line with business objectives and personal growth goals.

BEING FUTURE-READY

The telecommunications industry is evolving at a rapid speed with technologies such as AI, cloud computing and the transition to 'Open RAN' demanding more from employee skillsets, and softer skills such as critical thinking, problem-solving and self-management, becoming more important.

Business units therefore constantly review the critical skills needs of their employees and invest in programmes to keep their skills and knowledge future-ready.

3 UK and **3** Ireland offer a 'Digital Academy', providing employees with the opportunity to develop digital skills through e-learning, mentoring, events and professional qualifications. They also offer access to over 16,000 courses

““

3 UK and **3** Ireland offer a 'Digital Academy', providing employees with the opportunity to develop digital skills through e-learning.



via LinkedIn Learning and dedicated tech-skills learning platforms such as INE and Pluralsight. Both business units have set targets to achieve a 25% increase in employee engagement with its digital learning platforms in 2023.

3 Academy is the learning and development platform in Denmark offering learning opportunities to all employees to assist in their career progression. In 2023, 125 employees participated in the **3** Academy program, which offers ECTS points recognised by European universities, and a Danish Ministry of Education-accredited 'Academy Profession Degree' (AP Degree) upon completion of six **3** Academy courses.

3 Sweden has 'open sessions' where employees can register for different training, for example in elements of AI, creative and efficient digital meetings, unconscious bias, stakeholder communication, excel skills, project management, self-leadership, time management, stress management, and so on.



INVESTING IN LEADERS

Investing in future leaders is essential for ensuring CKHGT's business units remain innovative and resilient while nurturing the talent pipeline to retain high performers. Business units have developed comprehensive programmes to facilitate high performance in leaders and their teams.

3 UK and **3** Ireland offer 'Amplify' – a six-month development journey for those who are new to leading others or new to leading at **3**. Experienced senior leaders can participate in the 'Connected Leaders' program, exploring leadership models that enable businesses to flourish and grow into the future, and developing skills for coaching and courageous conversations. 'Phenomenal Teams' is also available for leaders and their teams to support ongoing high performance.

In 2023, **3** Hong Kong implemented the Talent Pool Initiative to identify and nurture high-potential employees. This initiative offers tailor-made training to address the unique development needs of each individual and equip them with the necessary knowledge and capabilities to excel in their present and future positions.

3 Sweden also offers leadership development programs covering topics such as business and innovation, for selected, high-potential employees.

🌿 WIND TRE PREPARING FOR FUTURE CHALLENGES

Wind Tre is preparing its people for the challenges of the future by supporting their employability. As part of its sustainability strategy, it has committed to a target of 100% 'future-ready' people centred on promoting a culture of lifelong learning and self-development. In 2023, it delivered more than 340,000 training hours for its employees, including its Digital Mindset Development Programme, selected as global best practice by the Top Employers Institute.



EMPLOYEE WELLBEING

As a part of the overall employee value proposition, and particularly in the context of the significant, global events in recent years, dedicated strategies and programs to support employee wellbeing are now more important than ever. Further, with a ‘war on talent’ and changing employee expectations, employee wellbeing has become another element in strategies to attract and retain top talent.

Business units have a range of programmes in place to support their employees’ mental, physical, and financial wellbeing. These often include: access to gym facilities, memberships and classes; workplace changing facilities; healthy and varied catering options; access to counselling services; and ongoing workplace enhancements enabling more social interaction during the working day. More recently, a number of business units have enhanced support for mental health. For example, 3 Ireland and 3 UK have introduced Mental Health First Aider Training and have run a series of webinars on mental health topics. 3 Austria has introduced twice-weekly mental wellbeing sessions open to all employees and contractors. 3 Sweden employees are provided with access to individual support on aspects of mental wellbeing such as managing stress.

📍 MENTAL HEALTH FIRST AID AT 3 UK AND 3 IRELAND

As part of their wellbeing approach, 3 UK and 3 Ireland have a trained team of over 100 Mental Health First Aiders from across the business, supported by their Employee Assistance Programme. In addition, 400 managers have received specific mental health training to support their teams. There are regular awareness raising campaigns, for example around World Mental Health Day or Stress Awareness to help spotlight available resources and support.



A number of Mental Health First Aiders with 3 UK and Ireland CEO Robert Finnegan during the World Mental Health Day campaign 2023

📍 EMPLOYEE WELLBEING IN 3 UK AND 3 IRELAND

Wellbeing is one of the key pillars of the 3 UK and 3 Ireland Inclusion and Belonging Strategy. Recognising that wellbeing can mean something different to everyone and we all need different things to thrive, 3 UK and 3 Ireland have a range of wellbeing support and initiatives covering mental, physical, social, and financial wellbeing. They offer their people a free subscription to Headspace, Peppy (menopause support), and Nudge to support financial education.



OPERATING RESPONSIBLY AND WITH INTEGRITY

- ESG RATINGS AND RECOGNITION
- PREPARING FOR REGULATORY CHANGE ON ESG REPORTING
- DATA PRIVACY
- CYBERSECURITY
- ENVIRONMENTAL POLICY AND MANAGEMENT
- SUSTAINABLE PROCUREMENT AND SOCIAL SUPPLIER STANDARDS
- HEALTH AND SAFETY
- ELECTROMAGNETIC RADIATION
- PRODUCT QUALITY AND SAFETY
- BUSINESS CONTINUITY PLANNING



CKHGT is committed to acting responsibly and with integrity in the way it manages its operations and its value chain. It also aims to play an active role in protecting customers from risks and potential harm where telecommunications services are misused or abused. This includes working to protect the privacy of customer data, maintaining the highest level of cyber-security standards, managing environmental impacts and sourcing responsibly.

ESG RATINGS AND RECOGNITION

ESG RATINGS

In 2023, CKHGT solicited its first Sustainalytics ESG rating, and was proud to achieve a 'low risk' rating, ranking 4th in the telecoms universe and 6th percentile in Sustainalytics' overall global universe at the time of rating. This included attaining full scores in 20 of the ESG indicators, including greenhouse gas reduction, data privacy, cybersecurity and human capital development, among others. CKHGT was subsequently included in the Sustainalytics' 2024



Top-Rated ESG Companies List and awarded both ESG Top-rated badges for its industry and region.

In 2023 Wind Tre further improved its EcoVadis rating, one of the largest networks in the world for evaluating corporate sustainability: +25% in 2023 compared to 2022. With this improvement, Wind Tre is in the top 1% of companies globally, assessed by EcoVadis in the telecommunications sector in 2023.

SUSTAINABILITY GOVERNANCE AND RECOGNITION AT WIND TRE

During 2023, Wind Tre also adopted an ESG policy, formalising the reference principles necessary to incorporate ESG commitments into the company's strategy and organisation.

Reflecting its good practice in sustainability governance and reporting, Wind Tre won numerous awards including the Social Report Award for excellence and diversity, and first place in the telecommunications category as a 2023-24 'Champion of Sustainability' (La Repubblica and the German Institute of Quality and Finance).



PREPARING FOR REGULATORY CHANGE ON ESG REPORTING

CSRD

CKHGT business units participated in a CKHH Group-wide exercise to determine where they have obligations to report in accordance with the EU's CSRD. They continue to participate in a CKHH Group project to prepare for disclosures in 2026, which will continue throughout 2024 and 2025.



TCFD-ALIGNED REPORTING

During the year, as outlined in the chapter 'Taking Action on Climate Change' CKHGT sought assistance from an external advisor to assist in preparing for reporting on climate-risks and opportunities under forthcoming and existing regulatory frameworks (so-called 'TCFD-aligned reporting'). Building on work undertaken in 2021 to develop climate scenarios and identify climate-related risks and opportunities in the short, medium, and long-term, CKHGT prioritised, and undertook scenario analysis to quantify those risks and opportunities. 3 UK acted as the lead business in quantification, as it actively prepared for its disclosures under The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022, for publication in 2024. This progress across CKHGT business units will also support readiness for future disclosures under the CSRD.

““

CKHGT business units participated in a CKHH Group-wide exercise to determine where they have obligations to report in accordance with the EU's CSRD.



EU TAXONOMY

The European Green Deal includes a commitment to reduce EU net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels and to achieve an economy with net zero emissions by 2050.

As a component of the European Green Deal, the EU launched a Sustainable Finance Framework, aiming to reorient capital flows towards sustainable investment, of which a cornerstone is the 'European Taxonomy for Sustainable Activities', or 'EU Taxonomy'.

The EU Taxonomy allows financial and non-financial companies to share a common definition of economic activities that can be considered environmentally sustainable. The requirements of the EU Taxonomy are set out in the 'Taxonomy Regulation' (2020/852/EU) which entered into force in July 2020.

Under the new CSRD, certain CKHGT businesses will be required from 2026 onwards to publish a range of sustainability disclosures, which will include disclosures pursuant to Article 8 of the Taxonomy Regulation.

During the reporting year, CKHGT also worked with a third-party specialist to begin preparations for reporting in line with the EU Taxonomy. This will form a component of reporting in line with CSRD requirements in 2026.

Accordingly, CKHGT has begun work to review its economic activities in line with the EU Taxonomy (including the Taxonomy Regulation and its delegated and implementing acts). In 2023, CKHGT commissioned a third-party advisor to assist in analysing how its business activities map against the EU Taxonomy for both 'eligibility' and 'alignment' reporting, as well as understanding what actions may need to be taken to enhance alignment in the future. This analysis focused on the environmental objectives of 'climate change transition', 'climate change adaptation' and 'transition to circular economy', since these are considered most relevant for CKHGT.

In order to be classified as 'eligible', an economic activity (i.e. a revenue-generating activity, or one involving capital or operational expenditure) must meet the EU Taxonomy activity description. [Table 3](#) shows an initial mapping of Taxonomy activities expected to be relevant for one or more businesses within CKHGT (i.e. against which one or more CKHGT economic activities are provisionally assessed as being 'eligible').

In 2024, CKHGT will begin to undertake quantitative data collection to support ongoing enhancement of its disclosures in relation to the EU Taxonomy and at the same time further assess eligibility and alignment of economic activities. This may mean that eligible activities are added or removed in future years.

EU TAXONOMY

Under the framework provided by the EU Taxonomy, an economic activity can be considered as eligible where it matches the description of an activity within the Taxonomy. However, it can only be considered 'Taxonomy-aligned' (and therefore environmentally sustainable) where it:

- i. **contributes substantially to any of a series of defined environmental objectives;**
- ii. **does not significantly harm any of the environmental objectives;**
- iii. **complies with a series of minimum social safeguards; and**
- iv. **complies with specified performance thresholds known as 'technical screening criteria' (or TSC).**

'Environmental objectives' are defined in the Taxonomy Regulation as being:

- **climate change mitigation;**
- **climate change adaptation;**
- **sustainable use and protection of water and marine resources;**
- **transition to a circular economy;**
- **pollution prevention and control; and**
- **protection and restoration of biodiversity and ecosystems.**

Table 3: Initial assessment of CKHGT economic activities matched to EU Taxonomy activity descriptions and therefore considered potentially 'eligible'.

EU Taxonomy activity	EU Taxonomy objective	Rationale for how CKHGT activity matches the EU Taxonomy activity
REVENUE-GENERATING ACTIVITIES		
3.2 Manufacture, installation, and servicing of high, medium and low voltage electrical equipment for electrical transmission and distribution that result in, or enable, a substantial contribution to climate change mitigation	Climate change mitigation	This eligible activity description includes systems or software aimed at substantial GHG emissions reductions, including through the integration of renewable energy, and / or systems to develop low carbon transport notably aimed at electric vehicle charging stations and supporting electric infrastructure. CKHGT offers solutions, particularly in the area of data analytics and artificial intelligence, that match the activity description.
8.2 Data-driven solutions for GHG emissions reductions	Climate change mitigation	CKHGT offers a number of solutions for collecting, transmitting and storing data that is predominantly aimed at the provision of data and analytics enabling the reduction of GHG emissions, thereby matching this activity description.
14.1 Emergency services	Climate change adaptation	Some CKHGT business units offer bulk messaging services / A2P messaging aimed at alerting on disaster prevention.
4.1 Provision of information technology (IT)/ operational technology (OT) data-driven solutions	Transition to a circular economy	CKHGT offers IT/OT solutions, including AI-based solutions, for the purpose of remote monitoring and predictive maintenance.
5.1 Repair, refurbishment and remanufacturing	Transition to a circular economy	A number of CKHGT business units offer repair of goods including returning a faulty product to a condition where it can fulfil its intended use, either as a service or resale.
5.5 Product-as-a-service and other circular use and result-oriented service models	Transition to a circular economy	A number of CKHGT business units offer products where access is through a service model, where the ownership of the product remains with the provider and the product is leased or rented.
8.3 Programming and broadcasting activities	Climate change adaptation	Some CKHGT business unit offer streaming services and content, for example packaged with connectivity subscriptions.

[Continues over page >](#)

EU Taxonomy activity	EU Taxonomy objective	Rationale for how CKHGT activity matches the EU Taxonomy activity
CAPITAL AND OPERATING EXPENDITURE		
7.3 Installation, maintenance and repair of energy efficiency equipment	Climate change mitigation	CKHGT business units install, replace, maintain and repair energy efficiency equipment such as lighting and heating, ventilation and air-conditioning (HVAC).
7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings	Climate change mitigation	A number of CKHGT business units have expenditure on installation, maintenance and repair of charging stations for electric vehicles in buildings and parking spaces attached to buildings, matching the description of this activity.
7.5 Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	Climate change mitigation	CKHGT business units install, maintain and repair building energy management systems (EMS) predominantly aimed at optimising heating and cooling systems.
7.6 Installation, maintenance and repair of renewable energy technologies	Climate change mitigation	A number of CKHGT business units install, maintain and repair renewable energy technologies, on-site.
8.1 Data processing, hosting and related activities	Climate change mitigation	CKHGT business units have expenditure related to the storage, manipulation, movement, control, display, switching, interchange, transmission or processing of data through data centres. Some business units also earn revenues associated with this activity.
4.1 Provision of information technology (IT)/operational technology (OT) data-driven solutions	Transition to a circular economy	CKHGT business units have expenditure on design and engineering software that supports the eco-design of products, equipment and infrastructure, including waste management and resource efficiency.
5.1 Repair, refurbishment and remanufacturing	Transition to a circular economy	CKHGT has expenditure related to repair of goods that have been used for their intended purpose before by a customer. This includes the process of returning a faulty product to a condition where it can fulfil its intended use, either as a service or resale.
5.5 Product-as-a-service and other circular use and result-oriented service models	Transition to a circular economy	A number of CKHGT business units have expenditure either related to the provision of access to a product through a service model, or themselves access a product through a service model (e.g. shared infrastructure and equipment with other operators).

DATA PRIVACY

The right to privacy is recognised in the Universal Declaration of Human Rights as a fundamental human right. This has been extended to recognise the right to data privacy in many jurisdictions throughout the world. Protecting the data entrusted to us by customers and employees is of the highest priority to CKHGT. 2023 saw increased data privacy enforcement by regulators globally. A major development in 2023 was the establishment of the EU-US Data Privacy Framework (EU-US DPF), allowing transatlantic data transfers under specific conditions. The European Court of Justice also issued several key rulings clarifying aspects of General Data Protection Regulation (GDPR) enforcement, such as the right to data access and the criteria for imposing fines.

The year also saw continued focus on regulating digital technology and AI, with the EU reaching a political agreement on the AI Act in December and the introduction of the Digital Markets Act, the Digital Services Act and the Data Act in the EU. Regulatory and privacy teams continue to monitor developments in new legislation to identify the impact and take mitigating action.

APPLYING LEADING DATA PROTECTION STANDARDS

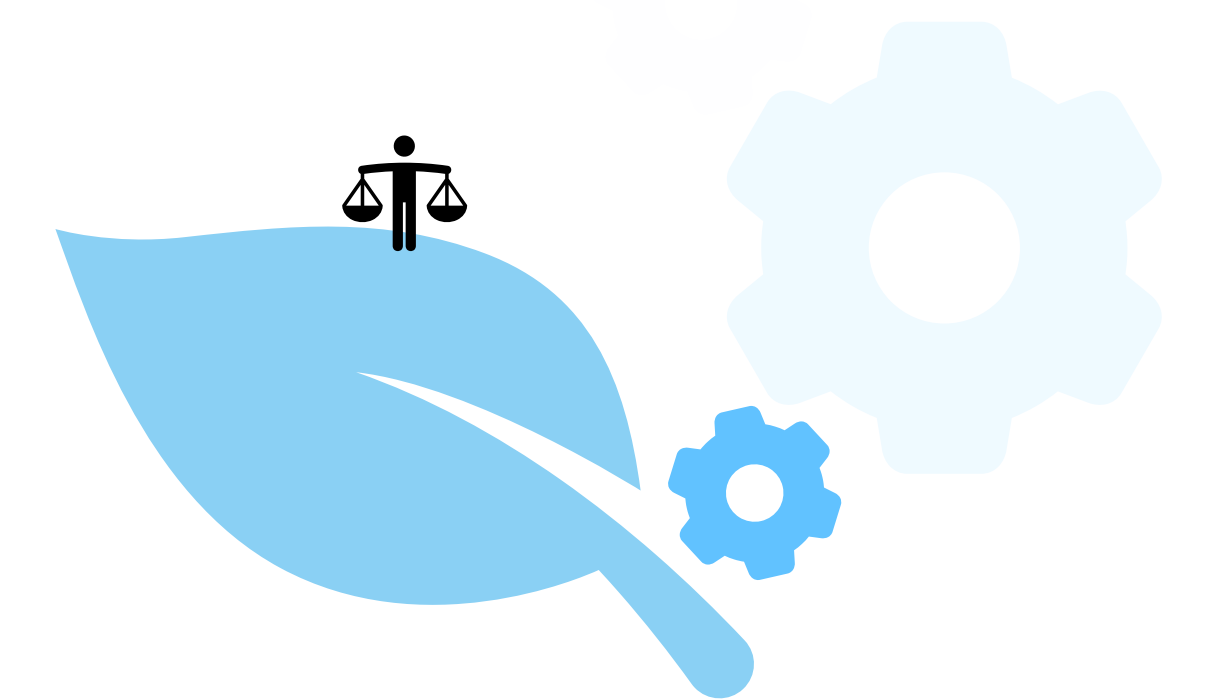
Data protection laws throughout the world continue to emerge and evolve, and compliance with these laws is guided by country-specific privacy policies with advice and guidance provided by locally appointed Data Protection Officers. The EU's GDPR is considered to be the highest standard of data protection legislation and compliance, and standards to uphold this regulation are embedded in operations and processes throughout CKHGT European business units.

DATA PRIVACY GOVERNANCE AND POLICY

CKHGT operates according to the CKHH Personal Data Governance Policy. This outlines required practices related to: data privacy compliance; privacy by design; privacy and data protection training; privacy risk assessments; privacy notices; disclosure of personal data to law enforcement authorities; responding to data security incidents; use of CCTV; and requirements of third-party processors. In addition, business units typically have a local level data protection or data governance policy to reflect local circumstances and requirements. Each business unit has a designated Data Protection Officer to oversee data privacy compliance and practice, accountable to the local CEO. In addition, there is

“”

Protecting the data entrusted to us by customers and employees is of the highest priority to CKHGT.



often a local privacy steering committee or working group to steer data privacy activities and support ongoing compliance as the business evolves.

REGULAR TRAINING

Mandatory training is provided by business units to all employees at least annually. Training is typically delivered through a dedicated module, often alongside regular cybersecurity training, and is updated as necessary by Data Protection Officers.

For example, in 2023, **3** Sweden held a Privacy Week to engage employees on privacy topics and employees were required to complete annual mandatory data privacy training.

Furthermore, in several business units, specific training has been developed for customer-facing staff, appropriate to their roles, and for certain external data controllers and processors.

PRIVACY RISK ASSESSMENTS AND AUDITS

Business units routinely conduct privacy risk assessments in relation to new products, technologies and business operations.

This includes, for example in European business units, Records of Processing Activity (ROPA) (with initial risk assessment) and Data Protection Impact Assessments (DPIA)

associated with GDPR, as well as Transfer Impact Assessments (TIA) where required.

The principles of data privacy by design and by default are central to approaches taken across CKHGT, with strategy, transformation and new product teams typically working closely with Data Protection Officers to ensure that data protection principles are adhered to.

Internal audits are conducted on an ongoing basis, including by Group Management Services (GMS) and local Data Protection Officers. In 2023, GMS reported on the findings of internal audits covering aspects of data privacy for Wind Tre (related to customer care operations), **3** UK (related to human resources) and **3** Ireland (related to store operations). External audits are also performed by national supervisory authorities, appointed external auditors, and other relevant bodies. These are conducted in accordance with applicable legal and regulatory requirements as well as data privacy policies.

European business units also regularly conduct audits of third-party Data Controllers and Data Processors.

PRIVACY NOTICES AND EXTERNAL DATA PRIVACY POLICIES

Country-specific Privacy Notices have been developed and adapted to local regulatory requirements. These are available

“”

Internal audits are conducted on an ongoing basis, including by Group Management Services (GMS) and local Data Protection Officers.



on business unit websites in local languages, with clear information on the collection, use, sharing, retention and deletion of personal data including data transferred to third parties (in addition to the ability to opt-out). Where a policy change occurs that affects the way customer data is managed, the Privacy Notice is updated accordingly, and in some circumstances, a significant change may be notified directly to the customer e.g. through their account communications.

Contact details are provided within the Privacy Notice and / or on external privacy business unit websites with information on how data subjects can raise concerns about data privacy and exercise their rights under data protection legislation. This includes how they can raise concerns and make amendments, where they have not been able to do this via data self-management functions often available online.

PRIVACY BREACHES

The CKHGT Personal Data Governance Policy requires that should a Data Security Incident occur involving personal data, business units should aim to mitigate the potential consequences and to secure personal data from further unauthorised access, use or damage as quickly as possible. Business units should respond rapidly and in accordance with applicable procedures, which may include notifying the privacy authorities and/or affected individuals if required.

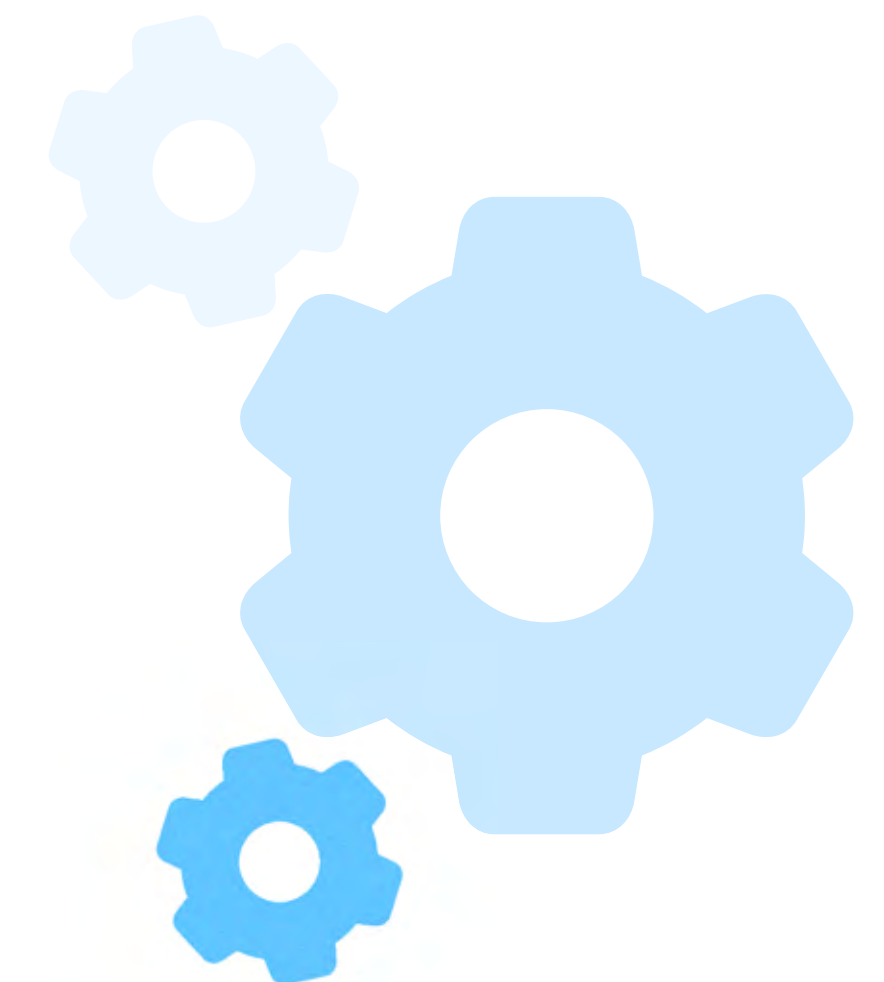
Business units notify relevant authorities and data subjects of a privacy breach at a minimum in line with legislative requirements, and often going further, depending on the significance of the breach.

REQUIREMENTS ON THIRD PARTIES

Entrusting the personal data of customers and employees to third party vendors for data processing services requires adequate data protection from a technical and organisational point of view and specific security requirements are required from all vendors as part of contractual due diligence. These requirements relate to:

- General security in terms of physical security, access policies, software, hardware and cloud resources protection;
- Security controls focusing on the protection of data;
- Applicable privacy law; and
- For European business units, a list of internationally-verified certifications, standards and frameworks.

These requirements are supplemented with many other compliance requirements in line with country-specific data privacy laws. Third parties must also undergo rigorous assessments where appropriate and adhere to the terms and conditions in data processing agreements. Further in-depth inspections are carried out for selected third parties.



CKHGT continues to adopt new control systems to strengthen governance, risk management and compliance to minimise the risk of regulatory action being taken for non-compliance with data privacy legislation. For example, Wind Tre has adopted a Governance, Risk Management and Compliance system that allows it to monitor the entire data processing chain, as well as to analytically assess the level of compliance of each system involved. In 2023, Wind Tre invested approximately €19 million in services and platforms for data and system security.

As the rate of technological development continues at speed, new legislation on data protection has developed globally. CKHGT is monitoring developments in this area to ensure that any transfer of data is in compliance with appropriate transfer mechanisms.

CYBERSECURITY

CKHGT's cybersecurity measures protect the confidentiality, integrity and availability of systems and information. CKHGT management recognises that as critical infrastructure increasingly moves onto digital platforms with the potential vulnerability to cyber-attacks, it must further develop its strong competency in cybersecurity. This is essential to protect customer privacy, rights and safety and the essential communication systems upon which society depends.

CYBERSECURITY GOVERNANCE

At the CKHH level, a Cyber Security Working Group oversees the cybersecurity risks and defences of the Group to ensure that its efforts in this area are effective, coherent, and well-coordinated.

The Cyber Security Working Group is chaired by Mr. Frank Sixt (CKHH Group Co-Managing Director and Group Finance Director, CKHGT Group Finance Director), who is also a CKHGT Board member and sits on the CKHGT Policy Board of CEOs. Both the CEO and Director of Global Technology and Market Intelligence (former Chair of the GSMA Fraud and Security Advisory Panel) from CKH IOD - CKHGT's dedicated innovation and collaboration business - represents CKHGT on this working group.

The working group also includes representatives from Internal Audit and Group Information Services Department.

To supplement this, a sub-Working Group focused on operational technology further builds common approaches to cybersecurity across mobile networks, leveraging the deep knowledge and opportunities for collaboration across the Group's businesses. CKH IOD provides specialist input to this sub-Working Group where needed; for example, during 2023, benchmarking the tools and processes across CKHGT that contribute to cyber-readiness, allocating scores and identifying areas for improvement.

“““

At the CKHH level, a Cyber Security Working Group oversees the cybersecurity risks and defences of the Group.



The CKH IOD business has responsibility for cybersecurity in relation to a number of central functions across CKHGT: Group roaming hub and services; SIM and eSIM functions; the MVNO enabling platform; the Group IoT platform; and the Group Digital Hub (consumer applications). The CKH IOD cybersecurity operations team is managed by the Director of Technology, with oversight of security operations by the Director of Global Technology and Market Intelligence.

In addition, each operating company has its own cybersecurity governance arrangements with dedicated cybersecurity teams led by a Chief Information Security Officer or IT department head, reporting either to the business unit Chief Technology Officer or the business unit CEO. These business unit teams manage governance and operational responsibility for network and IT security developing and implementing cybersecurity programmes, aligning cybersecurity and business objectives, incident reporting, disaster recovery, staff cybersecurity training and managing relationships with the relevant national security agencies.

The cybersecurity defences of **3** Hong Kong and Macau are governed by a Security Committee which manages cybersecurity defences and monitors the cyber threat landscape to gain insights into emerging and existing attacks and their implications. It also ensures that the efforts in managing cybersecurity risks are effective, coherent and well-coordinated.

A formal body has been established across **3** Denmark and **3** Sweden to oversee collaboration on information security standards and approval of related investments.

To meet the ongoing challenges of cybersecurity risk management and mitigate the latest threats, CKHGT collaborates with wider industry bodies such as the GSMA and European Telecommunications Standards Institute (ETSI). Business units also monitor the latest cybersecurity threats through industry forums and bulletins at a local level to maintain awareness of the latest and emerging risks.

All cybersecurity management is conducted within the framework of the CK Hutchison Holdings Information Security Policy.

CYBERSECURITY RISK MANAGEMENT FRAMEWORKS

Wind Tre and **3** Austria, together representing 56% of CKHGT operations, are certified in accordance with ISO 27001, with both business units renewing certifications during the year. Other UK and European business units comply with ISO 27001 minimum control standards, to support robust arrangements for information security risk management, with security a key criterion in the design, implementation, running and decommissioning of systems.



To meet the ongoing challenges of cybersecurity risk management and mitigate the latest threats, CKHGT collaborates with wider industry bodies such as the GSMA and European Telecommunications Standards Institute (ETSI).

Business units also incorporate best practice and guidance from the National Institute of Standards and Technology (NIST) into their cybersecurity risk management approach.

In 2023 a project to prepare for the NIS2 Directive was initiated across the shared IT and network technology functions of Denmark and Sweden, harmonising risk management arrangements including with respect to organisational, people, physical and technological controls. A new information security management system was also procured. Project and systems implementation will continue through 2024.

EXTERNAL AND INTERNAL AUDITS AND VULNERABILITY ASSESSMENTS

Regular external and internal audits and ongoing vulnerability assessments are an important element of CKHGT's information security risk management approach.

All business units conduct regular security reviews, vulnerability assessments, attack path mapping and penetration testing on their networks, systems and externally facing applications, either led internally or using external consultants. These reviews are performed using standardised approaches, reflecting threat intelligence feeds and industry benchmarks, with results reviewed and operational changes

made as necessary. These exercises probe not only the IT aspects, but also the people aspects, for example by sending phishing emails to gauge staff responses and attempting to put monitoring devices into networks or IT infrastructure.

Wind Tre has a dedicated 'Security Operation Centre' that carries out continuous and real-time protection and threat neutralisation using advanced data analysis and process automation technologies.

Cybersecurity also forms part of the regular internal audit programme of CKHH's GMS team, with **3** Denmark, **3** Sweden, **3** Austria and **3** UK cybersecurity arrangements coming within the scope of audit for 2023.

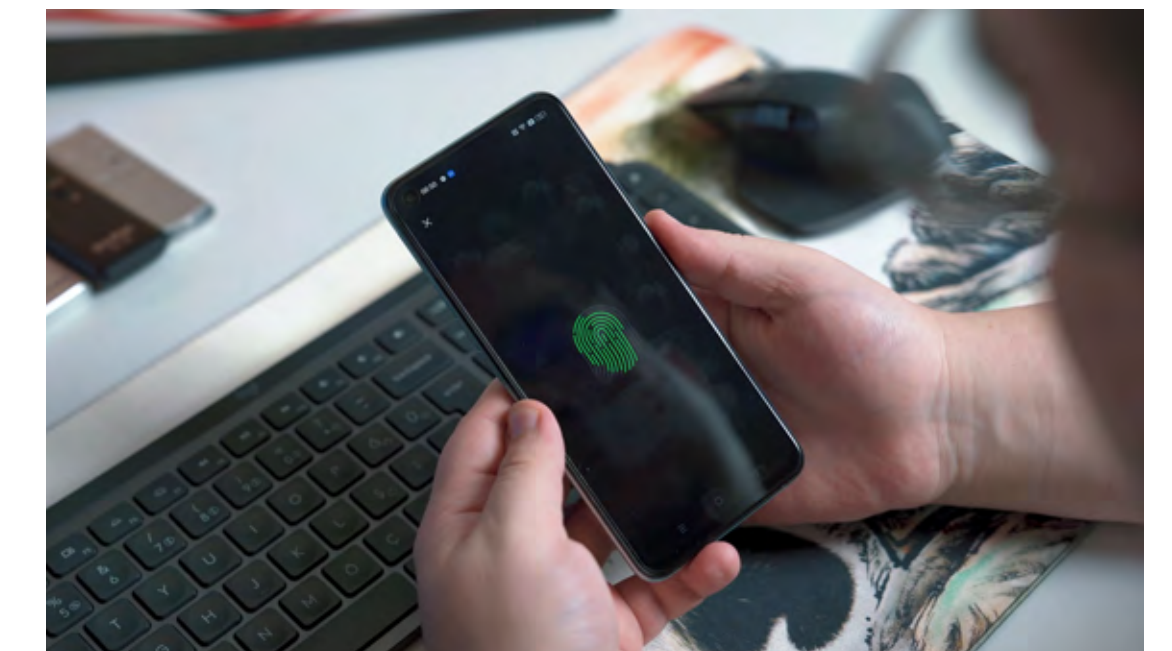
In 2023, the Cyber Security Working Group continued its major programme of benchmarking and monitoring cybersecurity preparedness, with annual self-assessments and twice-yearly progress reporting by all business units.

EMPLOYEE TRAINING

People factors are crucial in raising cybersecurity awareness and maintaining vigilance. Research shows that the level of knowledge of cybersecurity threats depends on education, age, and training. CKHGT therefore invests in continuous cybersecurity training for staff.

“”

In 2023, the Cyber Security Working Group continued its major programme of benchmarking and monitoring cybersecurity preparedness.



CKHGT business units deliver mandatory annual training and offer additional online training for employees, and contractors where appropriate, to boost staff security awareness - especially on aspects relating to social engineering, phishing and ransomware attacks, and data security compliance. Throughout the year they distribute periodic fraud alerts and run workshops related to new and common threats to raise cybersecurity awareness. Instructor-led sessions are also held for high-risk functions to reinforce best practice and identify any areas of concern.

For example, in 2023, to raise awareness on cybersecurity, **3** Sweden held targeted initiatives through e-learning for all staff, classroom training, employee phishing simulations and digital phishing awareness courses.

In 2023, in partnership with the Polytechnic University of Milan, Wind Tre offered a 'training pathway' for employees involving a combination of e-learning, webinars, and active learning through gaming. Training is structured into six modules covering information security, phishing and social engineering, authentication, navigation, workplace security, as well as Wind Tre policies.

In addition to mandatory e-learning and automated phishing simulations, **3** UK held its annual awareness campaign, 'Security Live!', involving three days of presentations from

internal and external experts, communication campaigns, competitions and gamified activities on cybersecurity topics.

To raise cybersecurity awareness among employees and protect against fraudulent and phishing emails, **3** Hong Kong launched 'Cyber Security Awareness Month' in May 2023, and implemented periodic fraud alerts and cybersecurity training workshops.

RESPONDING TO DATA BREACHES AND CYBER-ATTACKS

CKHGT business units have implemented endpoint detection and response, data recovery strategies, and incident response plans for data breaches and cyber-attacks. CKHGT is also investing in and procuring tools and services to detect cybersecurity attacks thereby enabling a quick response.

Business units have dedicated teams or individuals, and local level procedures for responding to crises or critical incidents, including Data Security Incidents. For example, in 2023, **3** Sweden and **3** Denmark together assigned a dedicated Computer Security Incident Response Team (CSIRT). Local procedures can include the appointment of third-party specialists, as well as intelligence/alert sharing to other CKHGT business units.



The process followed is dependent on the significance of the incident; in the event of a Data Security Incident involving personal data, business units will respond immediately according to applicable procedures to mitigate the potential consequences and secure personal data from further unauthorised access, use or damage.

The Legal and Regulatory Affairs Department, Corporate Security teams, and Corporate Affairs teams for some business units, will be alerted, and the relevant authorities and affected individuals (data subjects) will be notified if required.

Following an initial assessment of incident significance, the response proceeds according to established plans including business continuity plans, disaster recovery plans, and backup and data recovery strategies. Failover and restore tests are regularly performed, including as a part of system changes. Guidance on handling Data Security Incidents and the notification process is reviewed and updated periodically.

LOOKING AHEAD

CKHGT is continuously evaluating emerging technologies to assess relative risks and benefits and developing appropriate security policies and technical capabilities.

The ongoing roll-out of 5G as well as the decentralisation of mobile networks through increased use of the cloud

and Mobile Edge Computing create new cybersecurity challenges to which business units must respond, requiring continued investment in tools for Endpoint Detection and Response, Security Rating Service, and External Attack Surface Management.

In 2023, Wind Tre's direct investments in services and platforms for data and system security included the acquisition of the RAD Company which specialises in cybersecurity solutions. Other investments focused on network security, service continuity, and customer solutions - with dedicated services for B2B customer IT security management, and cloud transition.

CKHGT has also begun the first stage of a long-term project of transition to 'quantum resistant' cryptography, such that systems and customers can continue to be protected in a 'post-quantum' world.

In 2023 the CKHGT business units operating in the EU began preparing for compliance with the forthcoming EU Cyber Resilience Act (CRA), which introduces new regulatory cybersecurity requirements for products with digital elements. This is aimed at establishing a trusted supply chain, and consistency with NIST and the EU Cybersecurity Act.

“”

CKHGT is continuously evaluating emerging technologies to assess relative risks and benefits and developing appropriate security policies and technical capabilities.



ENVIRONMENTAL POLICY AND MANAGEMENT

All CKHGT business units manage environmental impacts in line with the CKHH Environmental Policy, which is applicable to all Group businesses. A number of business units have additional local level environmental policies to guide their activities.

ENVIRONMENTAL MANAGEMENT SYSTEMS

Wind Tre has environmental management systems over network design, installation and maintenance operations certified to ISO 14001: 2015 standard. In 2023, **3** UK achieved the ISO 14001: 2015 standard for the first time, and **3** Hong Kong extended its scope of ISO 14001 certification, also completing its first audit of previously ISO 14001 certified sites. Considering certifications for Wind Tre and **3** UK alone, these certifications now represent 68% of CKHGT operations.

Wind Tre has two additional certifications related to environmental management: ISO 50001 (energy management) and ISO 14064-1 (climate change).

In addition, and reflecting CKHH Group Policy, **3** Hong Kong developed a Biodiversity Policy in 2023.

ENVIRONMENTAL AUDITS

Business units undertake a range of external and internal audits of environmental compliance and performance. Environmental data and reporting forms part of the regular internal audit programme of CKHH's GMS team, with **3** Ireland audited in 2023. **3** Sweden has a regular external energy audit in accordance with Swedish regulatory requirements, with the most recent audit conducted in 2021- 2022. Wind Tre had 13 external audits and four internal audits - all related to the environmental management system. **3** Hong Kong undertook a 'green audit' as part of its participation in the Green Office Award Labelling Scheme (GOALS) of the World Green Organisation (WGO) - an independent non-governmental organisation concerned with environmental conservation and environmentally-related livelihood and economic affairs.

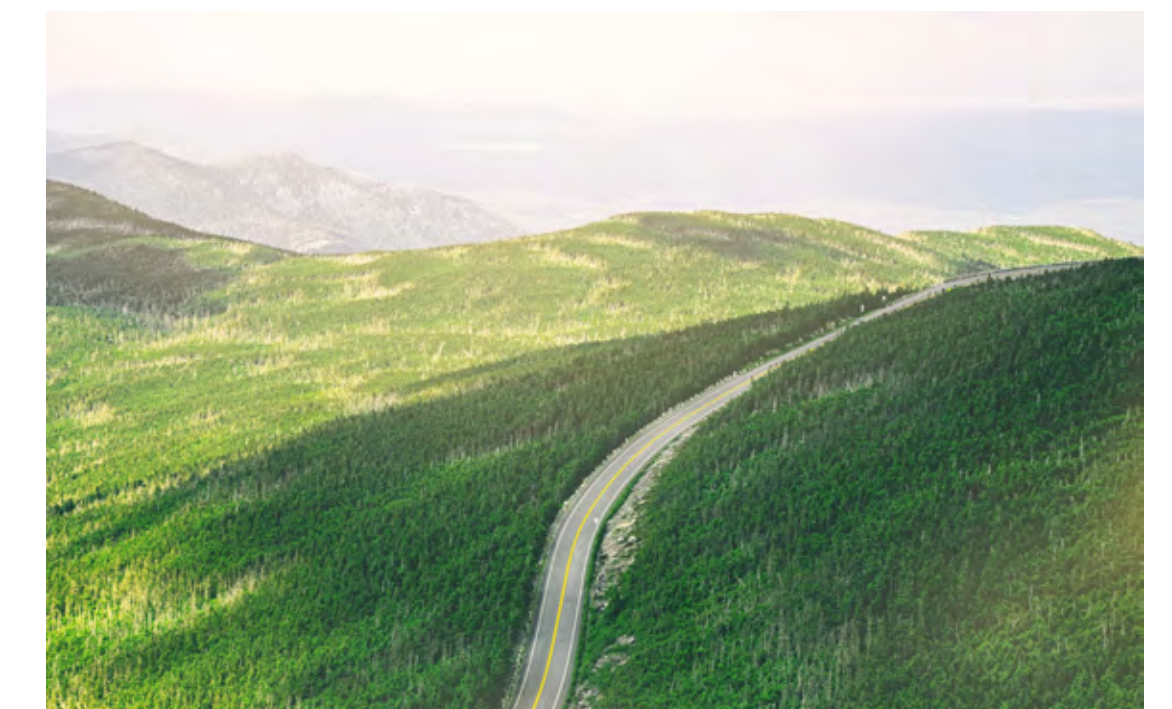
ENVIRONMENTAL TARGETS

As outlined in this report chapter 'Taking Action on Climate Change', CKHGT has committed to near-term science-based targets that have been approved by the SBTi, and all business units are working collaboratively towards these.

Additionally, a number of business units have set individual targets across aspects of environmental management including percentage of electricity from renewable sources, reductions in fleet emissions, reductions in business travel, reductions in paper usage, and responsible recycling of network waste.

“

Business units have set individual targets across aspects of environmental management including percentage of electricity from renewable sources, reductions in fleet emissions... and responsible recycling of network waste.



SUSTAINABLE PROCUREMENT AND SOCIAL SUPPLIER STANDARDS

SUSTAINABLE PROCUREMENT POLICIES AND FRAMEWORKS

Sustainable procurement, involving the identification and management of environmental, social and governance risks in the supply chain, is an essential aspect of operating responsibly. As a large group of companies, CKHGT also has an opportunity and a responsibility to use its influence to drive improvements in supplier practices.

All business units procure goods and services in line with the CKHGT Supplier Code of Conduct, and the CKHGT Human Rights Policy. The CKHGT Supplier Code of Conduct covers expectations of suppliers in relation to a broad range of topics including: environmental management and protection; climate change and GHG reduction; protection of natural resources and biodiversity; human rights, labour rights and other social standards.

These include our aim to prioritise suppliers that have a commitment to a science-based emissions reduction target and / or a GHG reduction plan.

As outlined in the CKHGT Supplier of Conduct, the requirements are applicable to second tier suppliers, with first tier suppliers expected to disseminate and educate the requirements of the Code to their employees, agents, sub-contractors and suppliers, and hold them accountable for any non-conformance acts.

SUPPLY CHAIN MANAGEMENT

Within each business unit, senior level responsibility for supply chain rests with the business unit Chief Financial Officer supported by one or more procurement directors or managers.

Business units have developed more detailed, local level supplier codes of conduct, aligned to the Group Policy, that selected suppliers are often required to accept or adhere to as part of their contract. A number of business units have implemented programs to assess supplier risks associated with environmental, social and corporate governance factors, and identify non-compliant suppliers, using EcoVadis or another supplier assessment tool, and to weight these factors in procurement decisions.

A number of business units provide channels for supply chain workers to raise concerns. For example, 3 Sweden provides a contact number whereby breaches of the Code of Conduct for Business Partners can be reported to the Director HR or Chief Legal Officer, including provision for anonymous reporting if required.

WIND TRE DEPLOYS CREBIS FOR SUPPLIER ESG RISK ASSESSMENT

In 2023, Wind Tre added a new goal to its 2030 ESG Plan on sustainable supply chain, aimed at further integrating environmental, governance and social factors into procurement processes and corporate choices. 100% of suppliers are assessed against environmental and social criteria and selected on the basis of adherence to the SA8000 Principles. To support its objectives, Wind Tre is partnering with the CRIF Group, offering a global digital platform for assessing and monitoring supplier ESG performance.

By the end of 2023, 59% of Wind Tre suppliers had registered on the ESG Platform and completed the ESG questionnaire. The platform scores each supplier and then proposes areas for improvement based on the company's sector. Suppliers are required to update their assessment on an annual basis so that Wind Tre can monitor progress.



CONFLICT MINERALS

Conflict minerals (tin, tungsten, tantalum and gold - commonly referred to as 3TG) are minerals that can finance armed conflict or mining using forced labour, particularly in conflict-affected and high-risk areas as defined by the Organisation for Economic Co-operation and Development (OECD). CKHGT is committed to avoiding the use of conflict minerals in its supply chain, as stated in the CKHGT Human Rights Policy and as required of suppliers within the CKHGT Supplier Code of Conduct.

A number of business units assess supplier approaches to conflict minerals through their environmental, social and governance risk supplier assessment process using EcoVadis or a similar tool. During 2024, there will continue to be a focus on extending CKHGT's engagement with suppliers on conflict minerals.

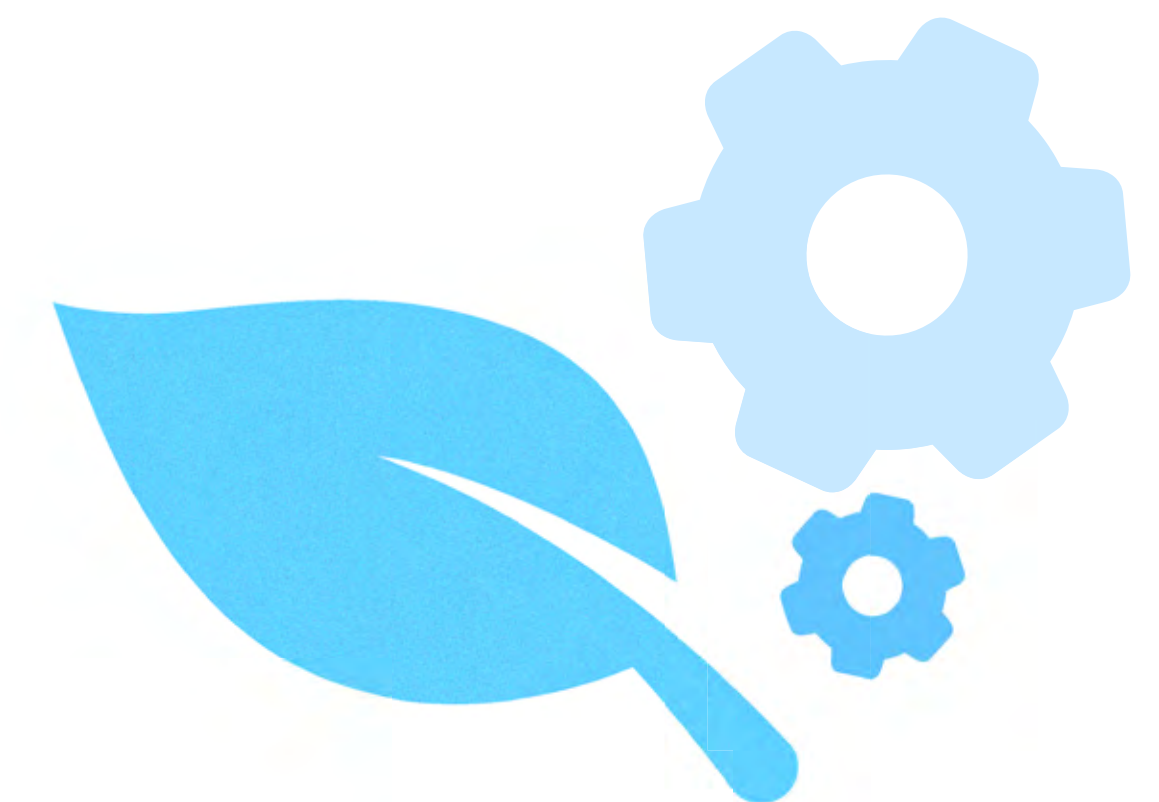


📍 SUSTAINABLE PROCUREMENT PROGRAMS IN UK AND IRELAND

During 2023, 3 UK and 3 Ireland continued to further develop their sustainable procurement programmes, leveraging the EcoVadis platform. Both business units introduced new supplier codes of conduct, including: expanded requirements on health and safety; and new provisions on climate impact, environmental impact of goods and services, circular economy and the protection and restoration of biodiversity. External internet pages were updated to make these refreshed expectations easily available to suppliers. 3 UK and 3 Ireland set targets to assess 95% of their suppliers by spend by the end of 2023, and are integrating the scorecard results into supplier management processes. As at the end of 2023, 3 UK had assessed 91% suppliers by spend and 3 Ireland had assessed 44%.



3 UK and 3 Ireland set targets to assess 95% of their suppliers by spend by the end of 2023.



HEALTH AND SAFETY

CKHGT complies with or exceeds applicable health and safety laws and regulations and upholds industry specific standards for best practice. All business units manage health and safety in accordance with the CKHH Health and Safety Policy. A number of business units have adopted the ISO 45001:2018 Occupational Health and Safety Management Systems standard, with Wind Tre (certain Network Design, Installation and Maintenance Operations), representing 38% of CKHGT operations, obtaining a three-year renewal of its certification. **3** Hong Kong has expanded the scope of the certification for ISO 45001:2018 Occupational Health and Safety Management Systems and completed the first audit of its previously certified sites. The certification exemplifies **3** Hong Kong's commitment to providing its employees with safe and healthy working environments.

Business units continue to review and strengthen health and safety governance and management arrangements. In 2023, **3** UK undertook a significant exercise to appoint a specialist health, safety and environmental services (HSE) provider, bringing specialist support on all aspects of health, safety and environmental management, including governance arrangements, standards, management systems, data quality, metrics and monitoring.

3 Austria has developed health and safety instructions for its employees and subcontractors, applicable to all premises, and

setting out minimum requirements on fire safety, health and safety, hygiene and other related matters. Occupational accidents and near-misses are recorded, with root cause analysis and corrective actions taken. An occupational psychologist is available for all employees at the **3** Austria headquarters in Vienna.

🎯 AWARD-WINNING SAFETY FOR EMPLOYEES, PARTNERS AND CONTRACTORS

In 2023, 3 UK received a Gold Medal award from the internationally renowned Royal Society for the Prevention of Accidents (RoSPA) for achieving six gold awards in consecutive years. The RoSPA Gold awards submission is led by master partners SGS and involves collaboration in all areas of 3UK. This includes submitting evidence of assessing and managing risks at all levels, training of staff, managing contractors and compliance through compliance auditing and providing evidence of Executive Leadership Team engagement in health and safety.

“”

CKHGT complies with or exceeds applicable health and safety laws and regulations and upholds industry specific standards for best practice.



ELECTROMAGNETIC RADIATION

CKHGT takes health and safety very seriously and is committed to the highest scientific and safety standards in all operations. Sites are designed and operated to comply with best international practice in mobile telecommunications and with all applicable national and international standards including those related to electromagnetic radiation fields.

The International Commission on Non-ionising Radiation Protection (ICNIRP) has developed international guidelines for Electromagnetic Frequency (EMF) radiation exposure which set out the safe operating limits for radio wave transmissions, including safety zones required around antennas. These limits have been assessed and endorsed by the World Health Organisation (WHO) and by the European Commission's 2015 report from their Scientific Committee on Emerging and Newly Identified Health Risks. The WHO has stated in its EMF Fact Sheet that 'no adverse health effects have been established as being caused by mobile phone use' while the European Commission has stated that 'EMF does not represent a health risk if the exposure remains below the existing limits'.

Business units are required to operate their networks within safe limits in accordance with their licences, and monitor compliance with required limits, in some cases audited by external, national regulators.

A number of business units take an active role in industry dialogue on EMF radiation. For example, **3** Austria and **3** Sweden participate in industry forums to share information and advice, and **3** Denmark has collaborated with other local operators to develop guidelines on compliance with limits. Wind Tre is actively working to raise awareness among national institutions and customer advocates of the existing differences between Italian and other European electromagnetic emission limits.

3 Sweden collaborates with other local operators and industry organisations to raise awareness about the effects of EMFs, via published information sheets and a dedicated EMF spokesperson.



““

CKHGT takes health and safety very seriously and is committed to the highest scientific and safety standards in all operations.

PRODUCT QUALITY AND SAFETY

The products sourced by business units are compliant with European or local regulations and standards related to health, safety and environmental protection, including for example, labelling according to the requirements of the Waste Electrical and Electronic Equipment Directive. Product quality and safety standards are specified within supplier agreements.

Within individual operating companies, certifications are required from vendors, or maintained directly within operations.

CKHGT's largest business unit, Wind Tre, representing 38% of operations, maintains accreditation with ISO9001 Quality Management System, in relation to aspects of telecommunication product and service delivery for large business customers. This helps to ensure ongoing product and service quality, continuous improvement in processes and compliance with relevant legislative requirements.

BUSINESS CONTINUITY PLANNING

Business units maintain business continuity plans (BCPs) and crisis management procedures as part of the wider risk management framework, to maintain network resilience and minimise disruption to operations, customers and staff in the event of a significant incident or major planned activity. These plans include management responsibilities, internal and external actions for response, recovery and resumption, and communications between stakeholders to be undertaken in times of crisis. Drills are often conducted to ensure that key team members are well prepared for any emergency, with debriefs conducted to assess performance and further enhance the response programme.

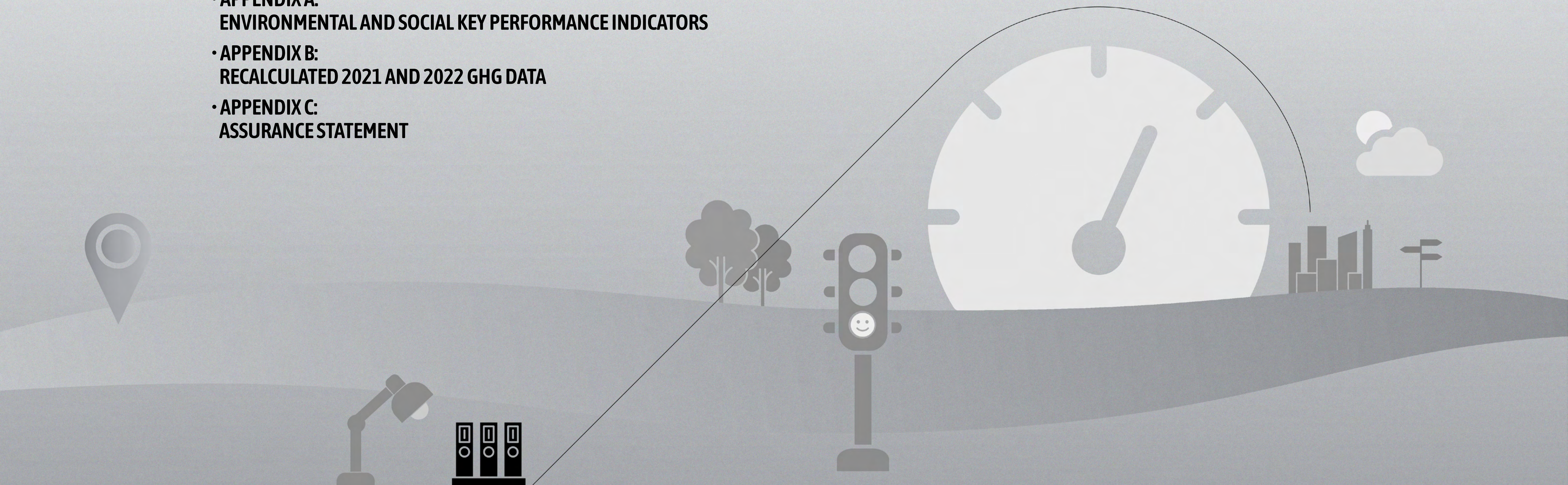
Wind Tre, representing 38% of operations, has developed its Business Continuity Framework in line with the ISO 22301:2019 standard for business continuity management and has developed BCPs for all critical processes from an economic, legal, reputation, strategic or operational perspective. Ongoing activities during 2023 include testing BCPs, expanding the scope of processes for which a BCP is in place, undertaking specialistic training, and continuous remediation focused on risk mitigation. **3** Austria continued to implement its risk-based model for business continuity in 2023, with urgency mapping for resolution of technical issues and prioritisation based on business process availability requirements.

“”

**Wind Tre,
representing
38% of operations,
has developed its
Business Continuity
Framework in
line with the
ISO 22301:2019
standard.**

APPENDICES

- **APPENDIX A:
ENVIRONMENTAL AND SOCIAL KEY PERFORMANCE INDICATORS**
- **APPENDIX B:
RECALCULATED 2021 AND 2022 GHG DATA**
- **APPENDIX C:
ASSURANCE STATEMENT**



APPENDIX A: ENVIRONMENTAL AND SOCIAL KEY PERFORMANCE INDICATORS

GHG EMISSIONS

	Units	2023	RECALCULATED 2022 ¹	RECALCULATED 2021 ¹
Scope 1 emissions - total	tCO ₂ -e	16,394*	15,509	16,876
Scope 2 (market-based) emissions - total	tCO ₂ -e	296,032*	310,014	352,120
Scope 2 (location-based) emissions - total	tCO ₂ -e	502,688*	444,680	395,867
Scope 3 emissions - total	tCO ₂ -e	1,295,362*	1,391,489	1,787,796
1: Purchased goods and services	tCO ₂ -e	672,394	632,861	871,320
2: Capital goods	tCO ₂ -e	305,179	436,799	578,035
3: Fuel- and energy-related activities	tCO ₂ -e	127,770	127,408	178,486
4: Upstream transportation and distribution	tCO ₂ -e	15,667	24,050	16,390
5: Waste generated in operations	tCO ₂ -e	134	70	113
6: Business travel	tCO ₂ -e	6,611	5,852	613
7: Employee commuting	tCO ₂ -e	7,325	8,037	6,583
8: Upstream leased assets	tCO ₂ -e	31,075	27,211	39,638
9: Downstream transportation and distribution	tCO ₂ -e	-	-	-
10: Processing of sold products	tCO ₂ -e	-	-	-
11: Use of sold products	tCO ₂ -e	80,737	83,309	51,887
12: End-of-life treatment of sold products	tCO ₂ -e	1,525	2,711	2,370
13: Downstream leased assets	tCO ₂ -e	-	-	-
14: Franchises	tCO ₂ -e	3,137	1,098	1,693
15: Investments	tCO ₂ -e	43,809	42,084	40,668
Total GHG emissions (scopes 1, 2 and 3) (‡)	tCO ₂ -e	1,607,788	1,717,012	2,156,793
Total GHG emissions intensity (scopes 1, 2 and 3) (‡)	tCO ₂ -e/(‡)	0.019	0.021	0.023
Total GHG emissions intensity (scope 1 and 2) (‡)	tCO ₂ -e/(‡)	0.004	0.004	0.004

(‡) using scope 2 market-based emissions

(‡) revenue HK\$'000

¹ GHG data for 2022 and 2021 has been restated to reflect a 2023 transaction (Zefiro Net) and a methodology change applied in 2023 to the treatment of 3 UK network-related emissions. See page 36 for further details.

We engaged KPMG LLP to undertake independent limited assurance, reporting to CKHGT, using the assurance standards ISAE (U.K.) 3000 and ISAE 3410, for the selected GHG emissions that have been highlighted above with an *. KPMG LLP's full statement is available on [page 91](#) of this report.

GHG data for 2023 was calculated in accordance with the [CKHGT GHG Reporting Criteria 2023](#).

WATER

	Units	2023	2022	2021
Water consumption total	m ³	73,506	97,515	120,023
Water consumption intensity	m ³ /(‡)	0.001	0.001	0.001

Water consumption and intensity data comprises operations in 3 UK, 3 Hong Kong, Wind Tre and 3 Austria, representing 84% of CKHGT operations by revenue in 2023. (‡) revenue HK\$'000

ENERGY

	Units	2023	RECALCULATED 2022 ¹	RECALCULATED 2021 ¹
Total energy consumption	MWh	1,841,802	1,739,782	1,516,745
Total direct energy consumption	MWh	48,172	45,112	41,567
Petrol	MWh	3,735	3,509	1,262
Diesel	MWh	37,116	38,463	35,227
Natural gas	MWh	6,499	7,718	7,484
Gas (excluding natural gas)	MWh	11	3	13
Solar	MWh	811	576	793
Total indirect energy consumed	MWh	1,793,630	1,694,670	1,475,178
Electricity	MWh	1,787,665	1,692,450	1,473,323
Heat	MWh	5,965	2,220	1,855
Self-generated and consumed from renewable sources	MWh	811	576	800
Purchased electricity from renewable sources	MWh	1,093,814	983,000	684,093
Renewable energy percentage	Percentage	61%	58%	46%

WASTE AND CIRCULAR ECONOMY

	Units	2023	2022	2021
Hazardous waste - total produced ²	Tonnes	315	125	269
Non-hazardous waste - total produced ³	Tonnes	2,468	1,821	2,598
Non-hazardous waste - recycled ³	Tonnes	1,918	1,258	1,899
Non-hazardous waste - other management methods	Tonnes	550	564	699
Total waste recycled ³	Tonnes	1,988	1,320	1,928
Network waste (\$)	Tonnes	1,839	-	-
Percent of network waste recycled (\$)	Percentage	80%	-	-
Percentage of network equipment decommissioned in the reporting period that was repaired, reused or sold to another company (by mass) (\$)	Percentage	7%	-	-
Total number of take-back devices (\$)	Number	129,238	-	-
Used devices collected through operator take-back schemes in the reporting period as a percentage of new mobile devices distributed directly to customers in the reporting period (\$)	Percentage	3%	-	-
Percentage of used devices collected through operator take-back schemes in the reporting period that were repaired, reused or recycled i.e. diverted from landfill or incineration (\$)	Percentage	98%	-	-

(§) Figures exclude 3 Hong Kong.

²Data excludes 3 Sweden, 3 Denmark and Wind Tre.

³Data excludes 3 Sweden and 3 Denmark.

EMPLOYEE NUMBERS

	Units	2023	2022	2021
Number of employees - total	Headcount	17,491	17,214	16,946
By employment type - full time	Headcount	14,411	14,041	13,692
By employment type - part time	Headcount	3,080	3,173	3,254

EMPLOYEE DEMOGRAPHICS

(Based on Full-time employees only)

	Units	2023	2022	2021
By gender - male	Headcount	9,010	8,772	8,574
By gender - female	Headcount	5,401	5,269	5,118
By employee category - Manager grade or above	Headcount	1,873	934	1,064
By employment type - General staff	Headcount	12,538	13,107	12,628
By age group - under 30	Headcount	2,453	2,437	2,314
By age group - 30-49	Headcount	7,852	8,033	8,200
By age group - 50 or above	Headcount	4,106	3,571	3,178
By geographical region - Hong Kong	Headcount	1,061	966	872
By geographical region - Mainland China	Headcount	96	100	100
By geographical region - Europe and UK	Headcount	13,254	12,975	12,720

All employee-related metrics additionally include the CK Hutchison entity 'CKH IOD', consistent with prior years.

EMPLOYEE TURNOVER

	Units	2023	2022	2021
Overall	Percentage	15%	16%	16%
<i>By gender - male</i>	Percentage	15%	16%	16%
<i>By gender - female</i>	Percentage	16%	15%	16%
<i>By age group - under 30</i>	Percentage	42%	40%	41%
<i>By age group - 30-49</i>	Percentage	11%	12%	12%
<i>By age group - 50 or above</i>	Percentage	6%	8%	9%
<i>By geographical region - Hong Kong</i>	Percentage	34%	45%	42%
<i>By geographical region - Mainland China</i>	Percentage	17%	14%	10%
<i>By geographical region - Europe and UK</i>	Percentage	14%	14%	14%

WORKPLACE HEALTH AND SAFETY

	Units	2023	2022	2021
Work-related fatalities	Number of employees	0	0	0
Number of work days lost due to injury	Number of days	239	528 [†]	605
Number of lost time injury incidents	Number of incidents	13	100 [†]	26

[†]Adjusted values based on amended Wind Tre data to exclude lost time injuries while commuting to and from work, from 2022 onwards.

TRAINING

	Units	2023	2022	2021
Full-time employees who received training	Percentage	86%	80%	82%
Percentage of full-time employees who received training among total trained full-time employees				
<i>By gender - male</i>	Percentage	63%	64%	65%
<i>By gender - female</i>	Percentage	37%	36%	35%
<i>By employee category - Manager grade or above</i>	Percentage	10%	6%	6%
<i>By employment type - General staff</i>	Percentage	90%	94%	94%
Average hours of training completed by full-time employees - total	Hours	29	35	27
<i>By gender - male</i>	Hours	29	35	28
<i>By gender - female</i>	Hours	29	34	26
<i>By employee category - Manager grade or above</i>	Hours	14	27	21
<i>By employment type - General staff</i>	Hours	31	35	28
Employees that received training on anti-corruption / ethics and integrity - total	Number	9,422	6,385	7,555
<i>By employment type - full time</i>	Number	7,068	5,034	5,857
<i>By employment type - part time</i>	Number	2,354	1,351	1,698
Employees that received training on anti-corruption / ethics and integrity - percentage	Percentage	43%	31%	37%
Number of training hours completed on anti-corruption / ethics and integrity - total	Number	14,343	12,554	17,521
<i>By employment type - full time</i>	Number	10,972	9,780	13,357
<i>By employment type - part time</i>	Number	3,372	2,774	4,165

COLLECTIVE BARGAINING

	Units	2023	2022	2021
Percentage of workforce covered by a collective bargaining agreement	Percentage	38%	39%	38%

SUPPLIERS

	Units	2023	2022	2021
Number of suppliers	Number	12,210	7,842	10,042
<i>By geographical region - Asia (excluding Hong Kong, Mainland China)</i>	Number	35	23	28
<i>By geographical region - Australia</i>	Number	11	7	6
<i>By geographical region - Canada</i>	Number	13	4	5
<i>By geographical region - Europe</i>	Number	9,990	6,271	8,359
<i>By geographical region - Hong Kong</i>	Number	401	347	397
<i>By geographical region - Mainland China</i>	Number	333	369	342
<i>By geographical region - New Zealand</i>	Number	2	0	0
<i>By geographical region - Other region</i>	Number	54	25	34
<i>By geographical region - United Kingdom</i>	Number	1,240	710	755
<i>By geographical region - United States</i>	Number	131	86	116

CUSTOMERS AND PRODUCTS

	Units	2023	2022	2021
Percentage of total products sold or shipped subject to recalls for safety and health reasons	Percentage	0%	0%	0%
Number of complaints - product related	Number	36,056	47,964	57,924
Number of complaints - service related	Number	825,260	1,049,027	1,120,686

APPENDIX B: RECALCULATED GHG EMISSIONS DATA FOR 2021 AND 2022

This appendix shows the GHG emissions data of 2021 and 2022 that has been recalculated to align with the baseline recalculation outlined on [page 36](#) of this report.

2021 GHG EMISSIONS DATA RECALCULATED

GHG EMISSIONS	Units	CKHGT 2021	CKHGT 2021
		as previously published in CKHGT Sustainability Report 2022	recalculated
Scope 1 total	tCO ₂ -e	16,306	16,876
Scope 2 (market-based) total	tCO ₂ -e	416,951	352,120
Scope 2 (location-based) total	tCO ₂ -e	385,160	395,867
Total scope 1 and 2 (market-based) GHG emissions	tCO ₂ -e	433,257	368,996
Total GHG emissions intensity (scope 1 and 2)	tCO ₂ -e / revenue HK\$'000	0.005	0.004
Scope 3 category 3: fuel- and energy-related emissions	tCO ₂ -e	173,896	178,486
Scope 3 category 15: investments	tCO ₂ -e	22,126	40,668
Scope 3 total	tCO ₂ -e	1,764,665	1,787,796
Total GHG emissions (Scope 1, 2 and 3)	tCO ₂ -e	2,197,922	2,156,793
Total GHG emissions intensity (scope 1, 3 and 3)	tCO ₂ -e / revenue HK\$'000	0.024	0.023

The overall effect of this recalculation has been to decrease scope 1 and 2 emissions (market-based) by 14.8%, with the Zefiro Net transaction contributing a decrease of 18.6% and the 3 UK methodology change contributing an increase of 3.7%; and to increase scope 3 emissions by 1.3%, with the Zefiro Net transaction contributing an increase of 1.2% and the 3 UK methodology change contributing an increase of 0.1%.

2022 GHG EMISSIONS DATA RECALCULATED

GHG EMISSIONS	Units	CKHGT 2022	CKHGT 2022
		as previously published in CKHGT Sustainability Report 2022	recalculated
Scope 1 total	tCO ₂ -e	14,410	15,509
Scope 2 (market-based) total	tCO ₂ -e	378,050	310,014
Scope 2 (location-based) total	tCO ₂ -e	418,953	444,680
Total scope 1 and 2 (market-based) GHG emissions	tCO ₂ -e	392,460	325,523
Total GHG emissions intensity (scope 1 and 2)	tCO ₂ -e / revenue HK\$'000	0.005	0.004
Scope 3 category 3: fuel- and energy-related emissions	tCO ₂ -e	118,164	127,408
Scope 3 category 15: investments	tCO ₂ -e	66,889	42,084
Scope 3 total	tCO ₂ -e	1,407,049	1,391,489
Total GHG emissions (Scope 1, 2 and 3)	tCO ₂ -e	1,799,509	1,717,012
Total GHG emissions intensity (scope 1, 3 and 3)	tCO ₂ -e / revenue HK\$'000	0.022	0.021

The overall effect of this recalculation has been to decrease scope 1 and 2 emissions (market-based) by 17.1%, with the Zefiro Net transaction contributing a decrease of 21.2% and the 3 UK methodology change contributing an increase of 4.2%; and to decrease scope 3 emissions by 1.1%, with the Zefiro Net transaction contributing an increase of 2.0% and the 3 UK methodology change contributing a decrease of 3.1%.

APPENDIX C: ASSURANCE STATEMENT



Independent Practitioner’s Limited Assurance Report to CK Hutchison Group Telecom Holdings Limited

KPMG LLP (“KPMG” or “we”) were engaged by CK Hutchison Group Telecom Holdings Limited (“CKHGTH”) to provide limited assurance over the Selected Information described below for the year ended 31 December 2023.

Our conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Selected Information has not been properly prepared, in all material respects, in accordance with the Reporting Criteria.

Our conclusion is to be read in the context of the remainder of this report, in particular the “Inherent limitations in preparing the Selected Information” and “Intended use of our report” sections below.

Selected Information

The scope of our work includes only the information included within “Taking action on climate change” section of CKHGTH’s Sustainability report (the “Report”) for the year ended 31 December 2023 marked with the symbol * (“the Selected Information”) (and also listed in Appendix 1).

Our conclusion on the Selected Information does not extend to other information that accompanies or contains the Selected Information and our assurance report (hereafter referred to as “Other Information”). We have not performed any procedures with respect to the Other Information.

Reporting Criteria

The Reporting Criteria we used to form our judgements are CKHGTH’s Greenhouse Gas Reporting Criteria (2023) as set out at

<https://www.ckhutchisontelecom.com/en/sustainability/sustainabilityreports.php>

(the “Reporting Criteria”). The Selected Information needs to be read together with the Reporting Criteria.

Inherent limitations in preparing the Selected Information

The nature of non-financial information; the absence of a significant body of established practice on which to draw; and the methods and precision used to determine non-financial information, allow for different, but acceptable evaluation and measurement techniques and can result in materially different measurements, affecting comparability between entities and over time.

The greenhouse gas (“GHG”) emissions quantification process is subject to scientific uncertainty, which arises because of incomplete scientific knowledge about the measurement of GHGs; and estimation (or measurement) uncertainty resulting from the measurement and calculation processes used to quantify emissions within the bounds of existing scientific knowledge.

For Scope 3 GHG emissions categories 1, 2 and 4, there are also significant limitations in the availability and quality of GHG emissions data from third parties, resulting in CKHGTH' reliance on proxy data in determining estimated Scope 3 GHG emissions. Over time better information may become available from third parties and the principles and methodologies used to measure and report Scope 3 GHG emissions may change based on market practice and regulation.

The Reporting Criteria has been developed to assist CKHGTH in preparing the Selected Information included in the Report. As a result, the Selected Information may not be suitable for another purpose.

Directors' responsibilities

The Directors of CKHGTH are responsible for:

- designing, operating and maintaining internal controls relevant to the preparation and presentation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- selecting and/or developing objective Reporting Criteria;
- properly preparing the Selected Information in accordance with the Reporting Criteria; and
- the contents and statements contained within the Report and the Reporting Criteria.

Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected Information is free from material misstatement, whether due to fraud or error;
- forming an independent limited assurance conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to CKHGTH.

Assurance standards applied

We conducted our work in accordance with International Standard on Assurance Engagements (UK) 3000 *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* ("ISAE (UK) 3000") issued by the Financial Reporting Council ("FRC") and, in respect of the greenhouse gas emissions information included within the Selected Information, in accordance with International Standard on Assurance Engagements 3410 *Assurance Engagements on Greenhouse Gas Statements* ("ISAE 3410"), issued by the International Auditing and Assurance Standards Board ("IAASB"). Those standards require that we obtain sufficient, appropriate evidence on which to base our conclusion.

Independence, professional standards and quality management

We comply with the Institute of Chartered Accountants in England and Wales (“ICAEW”) Code of Ethics, which includes independence, and other ethical requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour, that are at least as demanding as the applicable provisions of the International Ethics Standards Board for Accountants (“IESBA”) International Code of Ethics for Professional Accountants (including International Independence Standards).

Our firm applies International Standard on Quality Management (UK) 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements* (“ISQM (UK) 1”), issued by the FRC, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Summary of the work we performed as the basis for our conclusion

We exercised professional judgment and maintained professional scepticism throughout the engagement. We planned and performed our procedures to obtain evidence that is sufficient and appropriate to obtain a meaningful level of assurance over the Selected Information to provide a basis for our limited assurance conclusion. Planning the engagement involves assessing whether CKHGTH’s Reporting Criteria are suitable for the purposes of our limited assurance engagement. The procedures selected depend on our judgement, on our understanding of the Selected Information and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise.

The procedures performed included:

- obtaining an understanding of CKHGTH’ control environment, processes and information systems relevant to the preparation of the Selected Information, but did not include evaluating the design of particular control activities, obtaining evidence about their implementation or testing their operating effectiveness;
- carrying out selected testing remotely over location-level Selected Information for three locations;
- performing selected limited substantive testing in relation to the above locations, including agreeing a selection of the Selected Information to corresponding supporting information including meter reports and invoices but did not include testing the calibration of meters, reperforming meter readings, or physical visits to the sites which provided the source data for the Selected Information;
- considering the appropriateness of the carbon conversion factor calculations and other unit conversion factor calculations used by reference to widely recognised and established conversion factors;
- reperforming a selection of the carbon conversion factor calculations and other unit conversion factor calculations;
- performing analytical procedures over the aggregated Selected Information, including a comparison to the prior period’s amounts having due regard to changes in business volume and the business portfolio; and
- reading the Report with regard to the Reporting Criteria and for consistency with our findings over the Selected Information.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Intended use of our report

Our report has been prepared for CKHGTH solely in accordance with the terms of our engagement. We have consented to the publication of our report for the purpose of CKHGTH showing that it has obtained an independent assurance report in connection with the Selected Information.

Our report was designed to meet the agreed requirements of CKHGTH determined by CKHGTH' needs at the time. Our report should not therefore be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than CKHGTH for any purpose or in any context. Any party other than CKHGTH who obtains access to our report or a copy and chooses to rely on our report (or any part of it) will do so at its own risk. To the fullest extent permitted by law, KPMG LLP will accept no responsibility or liability in respect of our report to any other party.

KPMG LLP

KPMG LLP

Chartered Accountants

15 Canada Square, London, E14 5GL

19 September 2024

The maintenance and integrity of CKHGTH's website is the responsibility of the Directors of CKHGTH; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Selected Information, Reporting Criteria or Report presented on CKHGTH' website since the date of our report.

Appendix 1 – Selected Information

Metric	Assured Value
Scope 1 GHG emissions, tCO ₂ e	16,394
Scope 2 GHG market based emissions, tCO ₂ e	296,032
Scope 2 GHG location based emissions, tCO ₂ e	502,688
Scope 3 emissions, tCO ₂ e	1,295,362