

The Singtel Reset

Sustainability Report 2021



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ABOUT THIS REPORT

This is the seventh Group Sustainability Report by Singapore Telecommunications Limited (Singtel). It covers the sustainability performance of our operations in Singapore, where Singtel is headquartered, and Optus, our wholly-owned subsidiary in Australia, for the financial year 1 April 2020 to 31 March 2021 (FY2021).

This Sustainability Report (SR2021) covers the company's strategies, initiatives and performance in relation to Environmental, Social and Governance (ESG) issues. All data, statistics and targets are in relation to the Group's operations in Singapore and Australia unless stated otherwise. Group-level figures are in Singapore dollars, using the exchange rate of A\$1 to S\$0.9812. No restatements were made from the previous report except Employee Health and Safety related figures of Optus and the Singtel Group for 2020 in the People Performance Indicators on page 35. Besides leadership transitions to a new Chairman and Group CEO, there were no significant changes to the organisation and our supply chain during the reporting cycle.

This report captures the highlights and achievements of FY2021 and should be read together with [Singtel Sustainability](#) and [Sustainability Report 2021](#) webpages, which contain our corporate sustainability information and additional annexes like the GRI Index and EY assurance statement. Optus also produces a separate [Sustainability Report](#).

GRI and SASB

This report has been prepared in accordance with the GRI Standards: Core option and we have updated our waste reporting in line with its new Waste Standard, GRI 306 (2020). It complies with SGX Listing Rule 711 (A) and (B). It also contains our disclosures recommended by SASB based on the Telecommunications Services (Industry Standard, Version 2018-10).

External Assurance

We have engaged Ernst & Young LLP to independently assure a selection of our key ESG disclosures. The assurance statement can be read [here](#).

Feedback

We are fully committed to listening to our stakeholders and we welcome feedback on this report and any aspect of our sustainability performance. Please address all feedback to Vice President, Group Sustainability, at sustainability@singtel.com.

KEY HIGHLIGHTS FY2021

Climate Change and Environment



- Achieved A-leadership score in CDP 2020 for the fourth consecutive year
- Estimated carbon emissions avoidance of 73,226 tCO₂e/year during the year and achieved improvement in carbon intensity of 0.0501 tCO₂e/TB from 0.0665 tCO₂e/TB last year
- Updated climate scenario analysis and completed pilot study of physical and transitional climate risks in New South Wales, Australia, to identify material financial drivers and assumptions for nationwide Task Force on Climate-related Financial Disclosures (TCFD) scenario assessment exercise in Singapore and Australia
- Completed Australian Bushfire prediction and adaptation exercise in collaboration with Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Australian Packaging Covenant Organisation (APCO) Award for our Optus sustainable packaging achievements and efforts in the telecommunications sector for the fourth consecutive year

People and Future of Work



- Training investment of S\$16.8 million in Singapore and Australia
- Recognised by the 2021 Bloomberg Gender-Equality Index for the third consecutive year. Included in the Refinitiv Global Diversity & Inclusion Index 2020 for the second time
- Recognised as the Employer of Choice in Asia at the HR Fest Awards 2020 for being an all-rounder in HR practice
- One of the first companies in Singapore to be part of The Valuable 500, a global movement that seeks to place disability on the global leadership agenda
- Will train and convert 2,300 employees and 150 new hires in Singapore over two years on emerging technologies such as AI/ML, and specifically 5G under an internal 5G Workforce Transformation Committee

Community Impact



- Community investment of S\$37.65 million in Singapore and Australia
- Singtel Group's Digital Enablement programmes have supported close to 90,000 persons and 5,000 small and medium-sized enterprises
- Singtel and Optus Future Makers 2020 committed a total of S\$350,000 and supported five start-ups each to further their innovations using technology to tackle social issues
- Committed S\$1 million to the Singtel Digital Silvers programme which seeks to equip seniors with basic digital knowledge through weekly workshops conducted by staff volunteers and transform Senior Activity Centres into digital hubs
- Donate Your Data saw 25.5 million GB data donated by more than 440,000 customers which helped about 15,000 disadvantaged students in Australia

Sustainable Value Creation



- Long-term incentive plans for Singtel Group top management carry ESG targets to advance sustainable business growth
- Safeguarded customer interests by working closely with government agencies to develop processes that detect and block scam calls
- Completed sustainability assessment of our supply chain to deliver greater environmental and social outcomes and issued Optus' first Human Rights and Modern Slavery Statements
- Ranked Top Telco in the Global Child Forum benchmarking study 'The State of Children's Rights and the Corporate Sector in Southeast Asia 2020'
- Singtel and Grab consortium awarded a digital full bank licence in Singapore

Message from Chairman and Group CEO

The year 2020 was like no other – COVID-19 has upended the way we live and work, impacted how enterprises operate and accelerated digital adoption across the community. Against this unprecedented backdrop, the Group was put in the hot seat, as virtually every aspect of human interaction moved online amid lockdowns and social distancing, behoving us to connect people to work, school, family and healthcare without a hitch.

We believe we rose to the challenge and fulfilled the requirements of all our stakeholders in successfully ensuring business continuity while doubling down on efforts to foster digital inclusion for the broader community. Even as the pandemic has emphasised the essential nature of the connectivity that we provide, we are actively investing in next generation 5G technology to forge ahead and enable a faster digital transformation for all our stakeholders.

In this seventh Singtel Group Sustainability Report 2021, we highlight some of the steps that we have taken to further enhance financial, organisational, social and natural resilience. This enables us to not only deliver sustainable business performance, but also continue to uplift lives and communities through our initiatives, and to keep to our climate change commitments. The report has been endorsed by the Singtel Board and Management and highlights our plans, achievements and progress, and our new five-year sustainability targets to 2025.

CHARTING OUR JOURNEY TO 2025

In 2020, we embarked on a new materiality assessment and stakeholder engagement exercise, to ensure that our four strategic sustainability pillars continue to be relevant for our internal and external stakeholders. Some of the Environment, Social and Governance (ESG) topics in our last exercise in 2017 have changed in priority and significance, partly due to the pandemic and changes in the environmental and social climate. We have refreshed our commitments in the key pillars of sustainable value creation, environment, people and community. These will guide our decisions and actions over the next few years.

During the year, we also formalised a set of ESG-related targets for the Singtel Group Top Management's

long-term incentive plans in addition to the existing annual ESG-related targets in our Management Committee members' short-term incentive plans. This will help drive more accountability from management and employees to advance our goal of sustainable growth. We also executed our first S\$750 million sustainability-linked loan recently, which is tied to a subset of our ESG KPIs.

CREATING SUSTAINABLE VALUE FOR ALL

The focus of our sustainability strategy has always been to create value for all stakeholders, from our customers, shareholders and employees to the broader community. We aim to integrate the core ESG priorities within our businesses with a strong focus on innovation, digital enablement and good supply chain governance. It is also how we believe we can strengthen financial resilience for the business in the long term.

In Australia, we published our first Modern Slavery and Human Rights statement in end-2020 and updated our Supplier Code of Conduct for compliance. We trained our employees on our approach to these topics, and how to reduce related risks in our supply chain.

MAKING CLIMATE-CONSCIOUS BUSINESS DECISIONS

The last year has highlighted the connections between the pandemic and climate change. The global lockdown and the slowdown across economies have resulted in improved air quality and a temporary decrease in carbon emissions. To ensure that these positive climate shifts continue after the pandemic, organisations need to take conscious climate action and have deliverables embedded into their recovery plans.

Singapore's current focus on sustainability validates our early move in 2017 to establish SBTi-approved 2030 carbon reduction targets and to reach net zero by 2050. To that end, we are developing a decarbonisation roadmap including renewable energy adoption in our Singapore and Australian operations, adding to our ongoing initiatives such as converting to energy efficient mobile base stations.

Last year, Australia suffered bushfires which was followed by floods, highlighting extreme weather patterns in part

accelerated by climate change. As part of our ongoing strategy to build natural resilience, and in preparation for greater disclosure aligned to the Task Force on Climate-related Financial Disclosures (TCFD) framework, we have completed a detailed pilot study in northern New South Wales to understand our physical and transitional risks from different climate change scenarios. We also undertook an extensive bushfire prediction and adaptation exercise with the Commonwealth Scientific and Industrial Research Organisation (CSIRO). These exercises revealed valuable insights to our climate adaptation strategy outlined in this report. In the coming year, we will replicate these across our entire Australia and Singapore operations.

KEEPING EMPLOYEES SAFE AND ENGAGED

The pandemic has highlighted the importance of organisational resilience. Keeping our employees safe, healthy and fully engaged has been a key priority since the onset of COVID-19. We implemented workforce separation aligned with social distancing and business continuity measures and tightened safety and health protocol across our workplace. Our key frontline employees were also prioritised for vaccination.

Leveraging technology and collaborative digital tools has been key to achieving successful employee engagement during the extended periods of remote working. Regular advisories were sent to keep employees updated and ‘pulse surveys’ conducted to check on their well-being and how they were coping. Training and competency development for employees also continued digitally, with online modules covering topics ranging from personal development to professional and technical courses. We also achieved a record 32% higher learning places compared to last year.

Our efforts to connect with employees are reflected in our annual staff engagement survey which was conducted in November 2020. Staff engagement improved 10% compared to the previous year.

To continue building an inclusive workplace, we also reinforced our long-standing, holistic support for persons with disabilities. We launched the Optus Accessibility and Inclusion Action Plan 2020–2023, which will guide us as we build long term opportunities, remove barriers to access and ‘Power Optimism with Options’ for persons

with disabilities in our workforce, marketplace and community. We demonstrated our commitment towards disability inclusion by joining The Valuable 500, a global movement that seeks to place disability on the global leadership agenda.

DIGITISING OUR WAY FORWARD

The pandemic has accelerated not just the rate of digital adoption but also ignited conversation on how certain vulnerable groups in society, like seniors, have fallen through the gaps as they have little or no digital access. Without devices to connect and transact, many seniors have been left feeling isolated from family and friends and find it challenging to go about their daily lives.

Under Singtel’s digital enablement strategy, we launched the Singtel Digital Silvers programme in Singapore to help bridge those gaps, empowering seniors with digital skills so they feel less displaced by technology. 88% of them have expressed more confidence in using their mobile phones after attending our sessions.

We have also given SMEs a leg up through our Let’s Get Digital programme, helping SMEs take their business online to get more customers. With SMEs turning to infocomm technology to position themselves for post-COVID recovery and growth, we have also helped by offering tailored cyber security, collaboration and productivity solutions at an 80% subsidy under the government’s Productivity Solutions Grant.

In Australia, our Donate Your Data programme continues to gain traction – the switch to online and remote learning amid the pandemic has only heightened its relevance. To date, about 15,000 students have benefitted from 25.5 million GB of data generously donated by more than 440,000 Optus customers.

STAYING THE COURSE

COVID-19 continues to be a challenge that we all have to grapple with in the coming year. At Singtel, we remain optimistic and eager to chart new directions with our updated sustainability framework. We believe that active collaboration among businesses, governments and the non-profit sector will help us all emerge stronger. On behalf of the Singtel Board and Management, we thank you for your support.

Lee Theng Kiat
Chairman

Yuen Kuan Moon
Group CEO

Our Sustainability Approach

The Singtel Group, as Asia's leading communications technology company aims to create sustainable value not just for our shareholders, but also how we help our employees grow and develop, how we connect and enrich the lives of our customers and community through building trust and innovation, and how we create a positive impact on our environment.

We hope, through this approach, to be recognised globally for our responsible and leading business practices, and loved locally by our customers, communities and the markets we operate in.

Refreshed sustainability framework

We refreshed our sustainability framework during the year to better articulate how we embed sustainability into our business strategies and reflect our latest stakeholder engagement and materiality assessment. This framework comprises four sustainability themes, each a strategic driver with purpose and outcomes.

Besides serving as the compass to guide our actions, the framework seeks to demonstrate how our strategy, governance, programmes and performance lead to long-term business growth and value creation for stakeholders while protecting our environment.

This sustainability framework also supports the ten principles of the United Nations Global Compact

(UNGC) which Singtel has been a signatory since 2007, our priority 2030 UN Sustainable Development Goals (SDGs) and the global and local initiatives that Singtel Group is committed to.

For example, we are a member of The Valuable 500 and a founding member of the Singapore Business Network on DisAbility (SBNoD) to advance the equitable inclusion of persons with disabilities. We endorsed the TCFD framework in 2017 and GSMA's global ambition of achieving net zero emissions by 2050 for the telecommunications sector last year.

Renewed focus through stakeholder engagement and materiality review

We engage our internal and external stakeholders through constant dialogue on an extensive range of topics using various platforms and feedback mechanisms. This is on top of our regular interim and formal materiality assessments. With a deep understanding of all our stakeholders – their changing needs and interests as well as emerging concerns – we ensure the relevance of our sustainability strategy and programmes to deliver the intended outcome and impact.

Our third formal stakeholder engagement and materiality assessment was conducted between Q3 FY2020 and Q1 FY2021 across Singapore and Australia.

Climate Change and Environment

Reduce our carbon, waste and environmental footprint while building resilient networks and communities



People and Future of Work

Build a safe, diverse and inclusive workplace while attracting, retaining and investing in our people, equipping them with skills for the future workforce



Sustainable Value Creation

Create continued value through innovation and good governance across our supply chain



Community Impact

Bridge the digital divide and promote online safety while empowering the vulnerable to thrive in a digital world



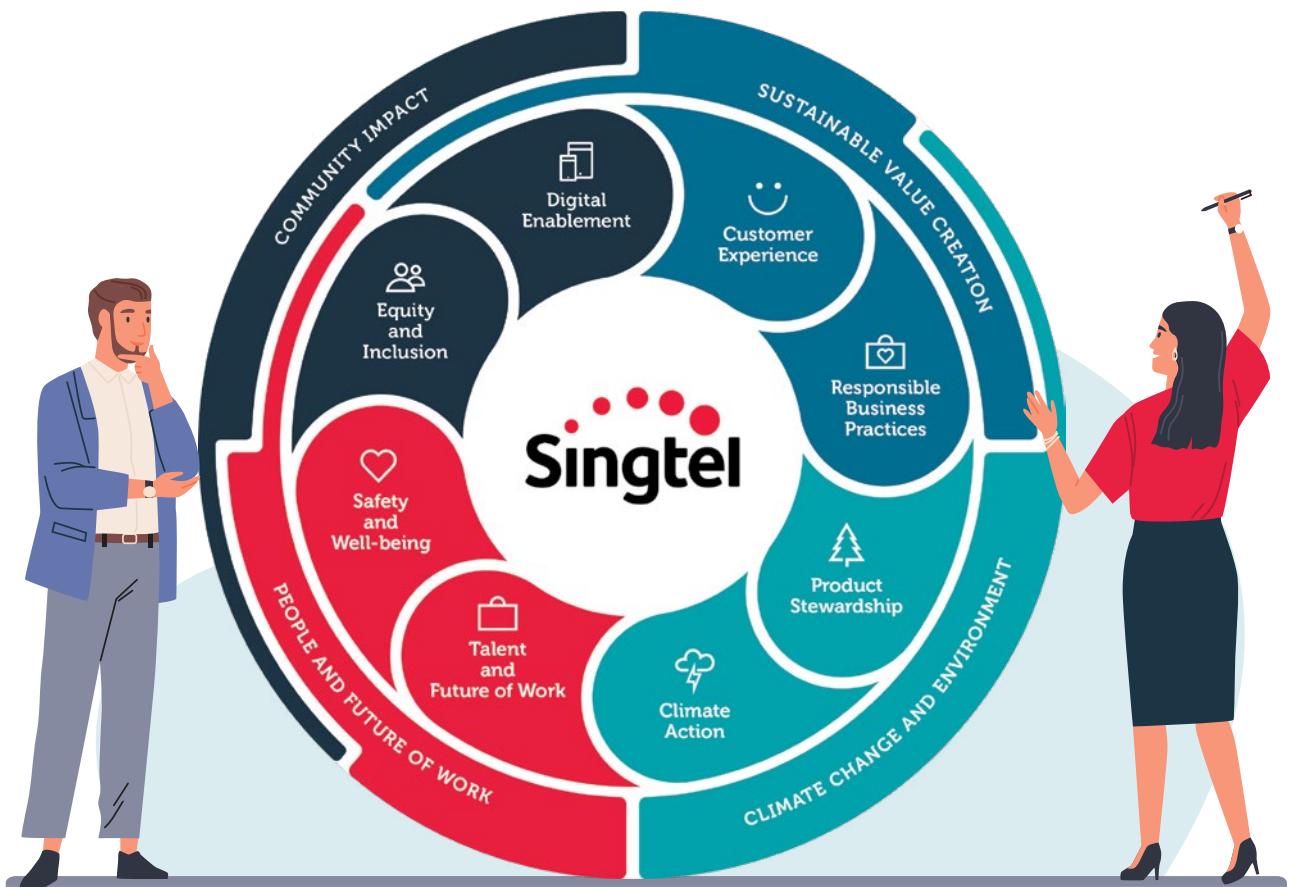


Figure 1: Singtel Group's Sustainability Framework

It aimed to identify and assess the ESG issues, risks and opportunities in areas that matter most to our stakeholders and the Singtel Group.

Our materiality methodology adopted a rigorous data-driven approach that evaluated both internal and external perspectives, using extensive landscape research and in-depth stakeholder insights. This exercise resulted in a list of material topics and SDGs that our stakeholders are most concerned with. The key topics then formed our areas of focus from FY2021 to FY2025.

Phase 1: Risk sensing

We analysed a wide range of global and industry studies on current and future sustainability trends to help us identify long-term sustainability success factors. This included literature guidance like the Science Based Targets initiative (SBTi) and the GSMA Sustainability Assessment Framework, the pivotal role of info-communications technology (ICT) in achieving the 2030 Agenda for Sustainable Development by the United Nations Commission on Science and Technology for Development¹, and competitive benchmarking of global telecommunication peers' sustainability goals and supported SDGs.

Phase 2: Stakeholder engagement

We obtained a detailed view of the ESG topics our stakeholders expect of the Singtel Group through direct engagement and feedback. We consulted close to 2,500 individuals from ten key stakeholder groups² through online surveys and one-on-one interviews. We also engaged new stakeholders – Academia and Bond Investors – due to their expertise in thought leadership and sustainable financing to help shape our sustainability strategy. Both internal and external stakeholders also evaluated our ESG performance and suggested areas of improvement. More details of stakeholder expectations can be found under Stakeholder Engagement on pages 11-12.

Phase 3: Materiality workshop

The risk sensing and stakeholder engagement identified 19 material topics, which were validated at a materiality workshop first with the sustainability teams at Singtel and Optus to ensure topic relevance and significance, and subsequently with the Singtel Management Committee and Board.

We grouped the 19 topics into four main sustainability themes: Climate Change and Environment, People and Future of Work, Community Impact, and Sustainable Value Creation which form a refreshed sustainability framework for the Singtel Group (see Figure 1).

1. Commission on Science and Technology for Development Report on the twenty-first session (14–18 May 2018)

2. Academia; Customers; Employees, Management and Board; Government and Regulators; Industry bodies; Institutional Investors; Media; Non-governmental organisations; Suppliers; and Trade Union

In addition, we conducted a new round of supply chain sustainability and organisational life cycle assessment to identify direct and indirect environment and social impact as well as risks and opportunities across our business operations and value chain.

The assessment also reviewed the ESG commitment of our top 100 suppliers against our material topics. These suppliers constitute 65% of our procurement spend. More details can be found under supplier sustainability assessment on page 55.

Phase 4: Material topic prioritisation

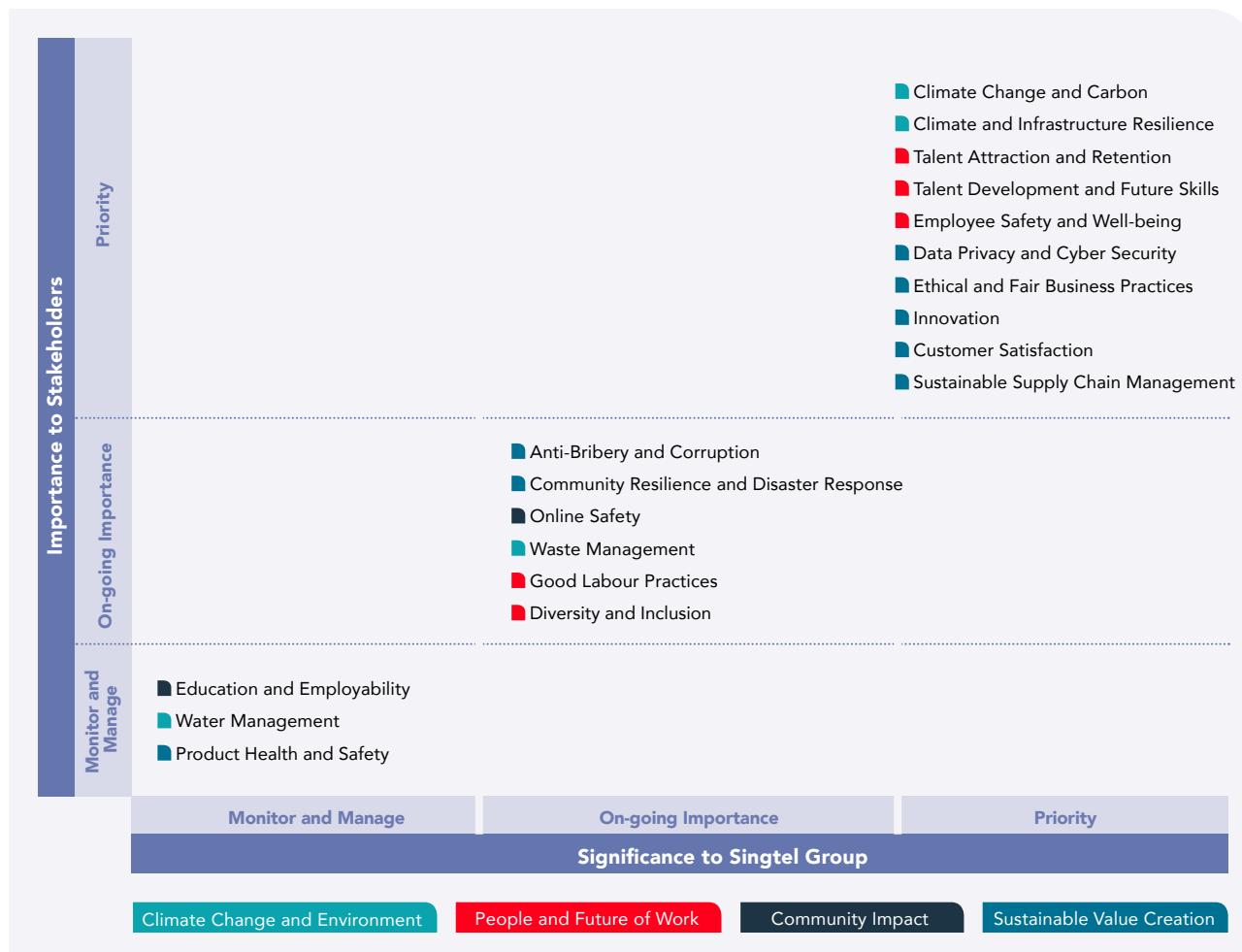
The 19 topics were plotted onto a materiality matrix based on the importance to stakeholders and significance to the Singtel Group. This gives us strategic clarity in responding to the opportunities and risks, which we grouped into three clusters:

- **Priority:** These ten topics of high significance serve to sharpen our sustainability focus and strategies to maintain our market leadership while leveraging our core ICT competence.
- **Ongoing importance:** These six topics represent our stakeholders' primary expectation of the Singtel Group as a responsible corporate citizen.
- **Monitor and manage:** These three topics will be actively monitored and addressed as part of our holistic sustainability approach.

Figure 2: Our Materiality Assessment Approach



Figure 3: Singtel Group's Materiality Matrix



Value chain analysis of material topics

We map our material topics and their relevance, according to the impact we cause or contribute to, within our value chain and supply chain.

Applicable Material Topics		Suppliers	Infrastructure	Operations	Products	Distribution	Customers
		1, 2, 5, 6, 7, 8, 10	1, 2, 5, 6, 7, 8, 9, 10	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 6, 7, 8, 9, 10
Group Consumer	Mobile	<ul style="list-style-type: none"> • Infrastructure platform vendors • Device vendors 	<ul style="list-style-type: none"> • Own network 3G/4G/5G • Other operators (e.g. interconnect) 	<ul style="list-style-type: none"> • Customer management • Network and IT operations 	<ul style="list-style-type: none"> • Voice and SMS • Data • Mobile wallet 	<ul style="list-style-type: none"> • Own retail stores • Franchise • Other retail stores • Contact centres 	<ul style="list-style-type: none"> • Customers (e.g. residents, travellers) • Vulnerable communities • Enterprises
	Fixed Broadband	<ul style="list-style-type: none"> • Next Generation Network and other carriers • Customer equipment vendors 	<ul style="list-style-type: none"> • Own network (e.g. fibre) • Other operators (e.g. fibre, submarine cables) 	<ul style="list-style-type: none"> • Customer management • Network and IT operations 	• Fixed broadband	<ul style="list-style-type: none"> • Own retail stores • Franchise • Other retail stores • Contact centres 	<ul style="list-style-type: none"> • Customers (e.g. residents, travellers) • Vulnerable communities • Enterprises
Group Enterprise	Managed Services	<ul style="list-style-type: none"> • Infrastructure platform vendors • Customer equipment vendors 	<ul style="list-style-type: none"> • Own network (e.g. IP VPN, data centres) • Other operators (e.g. fibre) 	<ul style="list-style-type: none"> • Service delivery • Monitoring and maintenance 	<ul style="list-style-type: none"> • Cloud • Managed hosting • Cyber security • 5G Enterprise • Contact centre • Systems Integration 		<ul style="list-style-type: none"> • Enterprises • Governments

- 01 Climate Change and Carbon
- 02 Climate and Infrastructure Resilience
- 03 Talent Attraction and Retention
- 04 Talent Development and Future Skills
- 05 Employee Safety and Well-being
- 06 Data Privacy and Cyber Security
- 07 Ethical and Fair Business Practices
- 08 Innovation
- 09 Customer Satisfaction
- 10 Sustainable Supply Chain Management





Singtel Board and Board Committee roles in sustainability governance



Singtel Board

- Participates as a stakeholder in sustainability materiality assessment (once every three to five years)
- Approves sustainability materiality items and matrix (once every five years)
- Approves five-year mid-term sustainability targets
- Reviews sustainability strategy, performance and progress (twice a year)
- Approves sustainability disclosures and report (annually)

Risk Committee

- Reviews key sustainability risks, including emerging risks, mitigation plans and progress (at least twice a year)
- Examples: climate risks, supply chain risks and cyber security risks



Finance and Investment Committee

- Approves sustainability-linked financing and associated ESG KPIs

Executive Resource and Compensation Committee (ERCC)

- Reviews and approves senior and top management compensation structure and long-term incentive (LTI) plan related to sustainability KPIs and performance
- Approves ESG-linked LTI Performance Share Award, where 20% of LTI is weighted to ESG KPIs, including people sustainability KPIs e.g. diversity and inclusion – women in leadership

Figure 4: Singtel Group's Sustainability Governance Structure

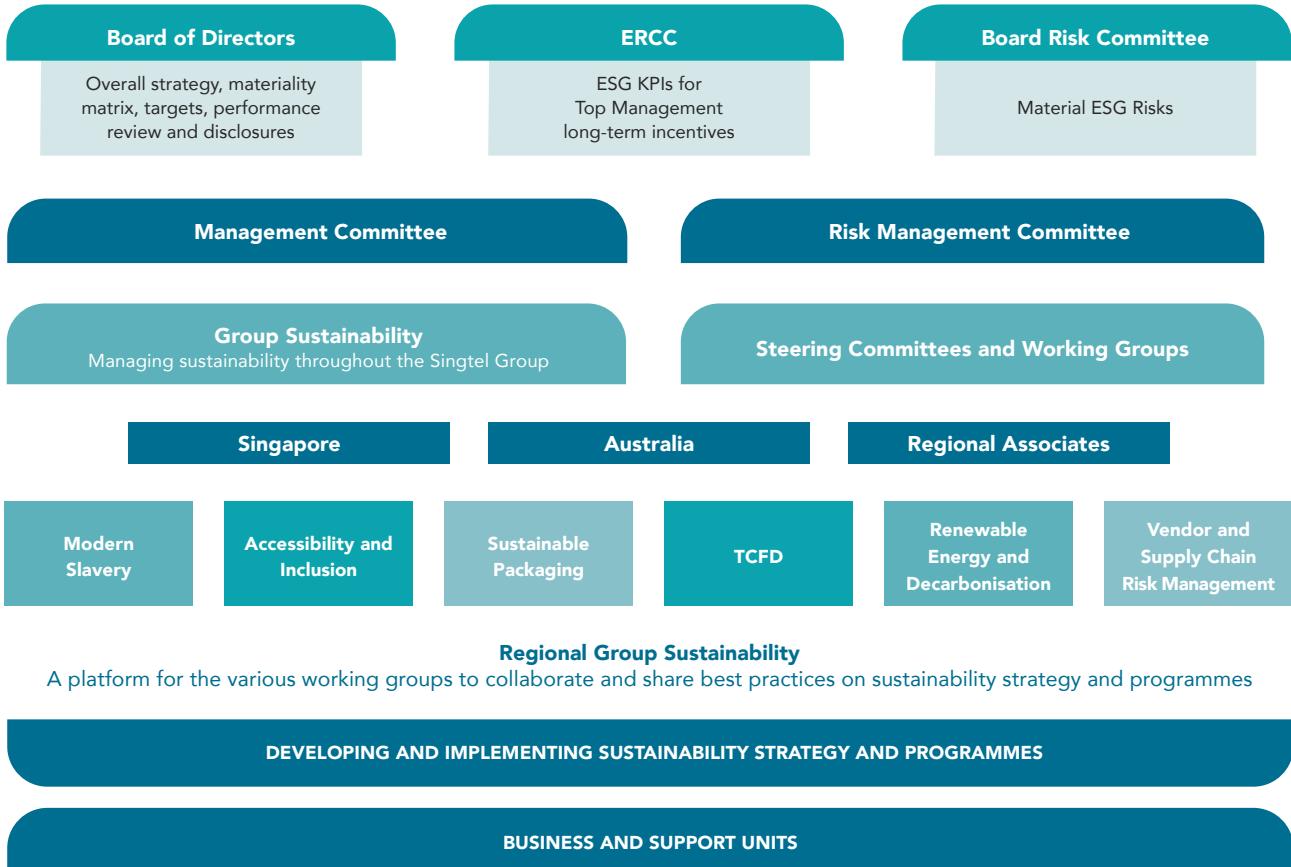


Table 1: Stakeholder Engagement, Key Topics and Concerns

Stakeholder		Academia	Customers
Engagement Platforms		• Regular discussions • Business roundtables • Panel discussions • Research projects	• Monthly customer experience surveys • Customer touchpoints
Key Topics and Concerns		Examples of Singtel Group's Efforts	
Environmental			
<ul style="list-style-type: none"> Infrastructure resilience during disruption, climate adaptation, and disclosure of physical and transition risks Low carbon and circular economy 	<ul style="list-style-type: none"> Increase business' climate resilience through development and upgrading of our network design and infrastructure, while disclosing long-term climate change risks and adaptation in line with TCFD Our ReCYCLE and Mobile Muster programmes allow people to safely recycle old mobile phones and accessories 	✓	
Social			
<ul style="list-style-type: none"> Vulnerable community groups Employee career development and training opportunities Workplace safety and health and work-life balance, including remuneration and benefits Business ESG matters including Diversity and Inclusion 	<ul style="list-style-type: none"> Singtel Digital Silvers and Donate Your Data We continue to invest in staff training and development We set up a 5G Workforce Transformation Committee comprising business leaders and representatives from IMDA, WSG, and SSG to train and convert 2,300 employees and 150 new hires across the Singtel Group in 5G roles We ensure employee safety and well-being and conduct regular market benchmarking of compensation and benefits We are involved in numerous industry collaborations to promote causes like employment of persons with disabilities and climate and community resilience e.g. Singapore Business Network on DisAbility, Australian Business and Community Network 	✓	✓
Governance			
<ul style="list-style-type: none"> Sustainability-balanced finance portfolio Corporate governance Product and service innovation Customer satisfaction Corporate direction and strategy ESG risks, performance and disclosures Green and social industry leadership, and ecosystem partnership and collaboration 	<ul style="list-style-type: none"> We issued our first sustainability-linked loan Our Board continues to provide oversight with support from our Management Committee and Risk Management Committee where ESG topics are reviewed Our foray into digital banking with Grab UNBOXED Lite 5G experience zones Our customer experience strategy focuses on constantly raising the bar for customer satisfaction We have regular management communication with employees on corporate strategy and direction We have regular communication with Board, Management and key internal business stakeholders on ESG matters We are involved in numerous industry collaborations to promote causes like employment of persons with disabilities and climate and community resilience e.g. SBNoD, Australian Business Roundtable for Disaster Resilience & Safer Communities (ABR) 	✓	✓

Employees, Management and Board	Government and Regulators	Industry Bodies	Institutional Investors	Media	Non-Governmental Organisations	Suppliers	Trade Unions
<ul style="list-style-type: none"> • Staff intranet portal and emails • Regular staff and management briefings • Annual staff engagement surveys • Monthly Board updates and regular Board meetings 	<ul style="list-style-type: none"> • Monthly customer experience surveys • Customer touchpoints 	<ul style="list-style-type: none"> • Regular discussions • Business roundtables • Collaboration 	<ul style="list-style-type: none"> • Quarterly business updates and half-yearly financial results announcements • Half-yearly investor roadshows by Senior Management • Annual Investor Day • Annual General Meeting • ESG roundtables and panels 	<ul style="list-style-type: none"> • Interviews by management 	<ul style="list-style-type: none"> • Regular discussions • Business roundtables • Management and steering committees 	<ul style="list-style-type: none"> • Supplier Code of Conduct • Supplier surveys 	<ul style="list-style-type: none"> • Regular Management-Union dialogues • Management-Union workshops and retreats
✓	✓		✓				
✓	✓	✓	✓			✓	
✓				✓	✓		
✓	✓						✓
✓							✓
		✓		✓			
			✓				
✓		✓			✓		✓
✓					✓		✓
✓						✓	
✓							
✓	✓	✓	✓	✓	✓	✓	✓

Our 2025 goals and progress report

We have set new five-year 2025 sustainability targets for the ten most material topics for the Singtel Group. We report our plans, achievements and progress towards these targets in our annual sustainability reports (from SR2021 to SR2025). We also disclose our efforts for the remaining nine material topics in the reports.

Material Topic	2025 Targets	FY2021 Progress
Climate Change and Environment		
 Climate Change and Carbon	Reduce absolute carbon emissions by 25% for Scope 1 and 2 by 2025, using 2015 as baseline, in line with our 2030 SBTi targets and 2050 net zero ambitions	592,894 tCO ₂ e carbon emissions in FY2021 or 0%. (page 27)
 Climate and Infrastructure Resilience	Continue to invest in network adaptation and resilience, while disclosing long-term climate change risks and mitigation in line with the TCFD framework	Total capital investment of S\$2.2 billion in our networks. (pages 17-26)
People and Future of Work		
 Talent Attraction and Retention	Attrition of high performers at no more than 60% of normal attrition	59% of normal attrition rate in FY2021.
 Talent Development and Future Skills	Training investment of S\$90 million from 2021 to 2025	Total training investment of S\$16.8 million. (page 31)
 Employee Safety and Well-being	Zero fatality	Zero fatality in FY2021. (page 36)
Sustainable Value Creation		
 Data Privacy and Cyber Security	Uphold the highest standards of customer data privacy protection and cyber security measures in adherence to data protection laws – Personal Data Protection Act (PDPA) in Singapore and the Privacy Act and Telecommunications Act in Australia – with zero major incident	We conduct our business in strict adherence to data protection laws in Singapore and Australia. There have been minor lapses due to IT, process or human errors. We continue to educate our employees, and improve practices and processes to reduce the recurrence of data breaches. (page 46-49)
 Ethical and Fair Business Practices	Uphold the highest standards of responsible business practices with no major controversies that result in regulatory fines, sanctions and/or doubled monthly customer churn rate	We strive to uphold the highest standards of responsible business practices. We had no major controversies in FY2021. (page 47-51)
 Innovation	Continue to develop new digital business and services to meet customers' changing needs	We continue to drive and embed innovation in our consumer, enterprise and digital businesses and operations, with 5G as an enabler for our customers, community and the environment. In December 2020, we were awarded a digital full bank licence by the Monetary Authority of Singapore. (page 52-53)
 Customer Satisfaction	Continue to uplift customer experience and remain as service provider of choice	We continue to lead in customer experience and maintain our market leadership position. As of March 2021, we were leading the market with our Net Promoter Score in Singapore. (page 51-53)
 Sustainable Supply Chain Management	No major human rights incident in our supply chain	We are committed to upholding and protecting the human rights of all individuals in our supply chain. During the year, we published our first Human Rights and Modern Slavery Statements in Australia. There were no human rights incidents in FY2021. (page 54-57)

UN Sustainable Development Goals (SDGs)

As a leading communications technology company, we recognise our role and capability in solving the broader environmental and social issues and contribute to the UN SDGs at the national and global level.

With the completion of our materiality review, we also undertook an SDG prioritisation exercise for Singtel Group using a weighted scoring system. We first consolidated relevant UN SDGs linked to six different factors using two lenses of internal perspectives and external alignment.

The three factors considered from an internal perspective were: (a) the 11 SDGs we have been supporting since 2015 (b) the 19 identified material topics and (c) the Group's core competence and business direction.

The three external alignment factors were: (a) the national SDG-related agenda of Singapore and Australia (b) stakeholders' priority SDGs from our stakeholder engagement exercise and (c) peer reviews and sustainability benchmarking. This would help to ensure that our priority SDGs are aligned at the industry level.

An aggregated score was then calculated for each SDG. This exercise distilled and identified six priority SDGs where Singtel Group can best contribute and create impact.

Building a sustainable future for all requires the commitment and effort of all stakeholders in the ecosystem. SDG 17 – Partnerships for the Goals – therefore underpins our sustainability strategy as we seek to collaborate with our stakeholders to create shared value and positive impact.

UN SDGs	Description	Singtel Group's Position	Examples of Singtel Group's Efforts
 3 GOOD HEALTH AND WELL-BEING	Goal 3: Good Health and Well-Being Ensure healthy lives and promote well-being for all at all ages	The Singtel Group strives to ensure good physical and mental health for our people in the workplace and in our community, including online safety and cyber wellness	<ul style="list-style-type: none"> We participate in the GSMA 5G and Health committee to shape health and safety guidelines in concern areas such as electromagnetic energy (EME) We partner leading organisations such as DQ Institute and TOUCH for outreach to students and parents on staying safe online, and expanded the Optus Digital Thumbprint programme to regional Australia
 8 DECENT WORK AND ECONOMIC GROWTH	Goal 8: Decent Work and Economic Growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	The Singtel Group is committed to developing our people and the community and creating a vibrant work environment across our global operations that enables individual, business and market success	<ul style="list-style-type: none"> We partner the Union of Telecom Employees (UTES) in Singapore to set up a Company Training Committee to ensure continued digital development of employees We are a founding member of SBNoD and partnered the Australian Network on Disability in Australia to advance equitable employment opportunities We support disadvantaged youth in Australia with our Pathways 2 Employment programme
 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Goal 9: Industry, Innovation and Infrastructure Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	The Singtel Group innovates continuously to bring the best services to our customers and collaborates with changemakers to build an effective and sustainable ecosystem	<ul style="list-style-type: none"> Singtel Group Future Makers, our regional social innovation accelerator and capacity building programme, seeks to support and empower impact start-ups leveraging technology to address social and environmental issues in the community We continue to invest in 5G as well as networks adaptation and resilience
 11 SUSTAINABLE CITIES AND COMMUNITIES	Goal 11: Sustainable Cities and Communities Make cities and human settlements inclusive, safe, resilient and sustainable	The Singtel Group leverages our ICT competence to develop solutions that improve quality of living and societal inclusion, and focuses on building a resilient network infrastructure	<ul style="list-style-type: none"> We are a founding member of Australian Business Roundtable for Disaster Resilience & Safer Communities to build the nation's climate resilience and helped to shape Australia's first National Disaster Risk Reduction Framework Our Let's Get Digital initiative helps SMEs to transform their operations with digital solutions to operate with agility, efficiency and productivity
 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Goal 12: Responsible Consumption and Production Ensure sustainable consumption and production patterns	The Singtel Group actively monitors and improves our resource and waste practices to increase circularity in our business operations and supply chain	<ul style="list-style-type: none"> ReCYCLE, our e-waste recycling programme with SingPost in Singapore, and Mobile Muster programme in Australia to recycle e-waste We have been committed to the principles of APCO since 2007
 13 CLIMATE ACTION	Goal 13: Climate Action Take urgent action to combat climate change and its impacts	The Singtel Group is committed to minimising our environmental footprint in our business operations and value chain and meet our carbon reduction targets	<ul style="list-style-type: none"> We played an active role on the GSMA Board and its Climate Action Committee to lead the industry in embarking on a landmark science-based sector-specific decarbonisation pathway to reduce greenhouse gas (GHG) emissions and achieve net zero emissions by 2050 We undertook a physical and transitional climate risk assessment pilot using TCFD guidelines

Climate Change and Environment

■ ■

We are committed to minimising our environmental impact and building operational resilience for the long-term benefit of our business and communities.

■ ■

Addressing climate change is one of the most pressing issues that the world faces today. From our regular stakeholder engagement between 2014 and 2020, we saw increasing focus on climate issues in our materiality review. Stakeholders are concerned with our carbon emissions from powering communication and connectivity, especially the high energy consumption by data centres.

With digitisation accelerated further by COVID-19, communities and economies are highly dependent on reliable communication networks. As the effects of climate change lead to worsening natural disasters, our stakeholders are more concerned with the reliability of our corporate and network infrastructure, and our network adaptation measures to mitigate these risks.

For our business, the biggest waste stream is e-waste due to the increased use of digital devices driven by ICT and IoT solutions. With greater concerns over pollution to the natural environment, governments are giving greater attention to the circular economy, with many requiring companies to ensure product stewardship from 'source to sink' – upstream resource to end-of-life management.

The Singtel Group strives to address our stakeholder concerns to achieve 'the smallest footprint' on our environment. This includes rallying our partners and vendors in the ecosystem to collaborate innovatively and achieve greater positive outcomes. We are also committed to supporting communities that are adversely affected by climate-related disasters as part of our climate action.

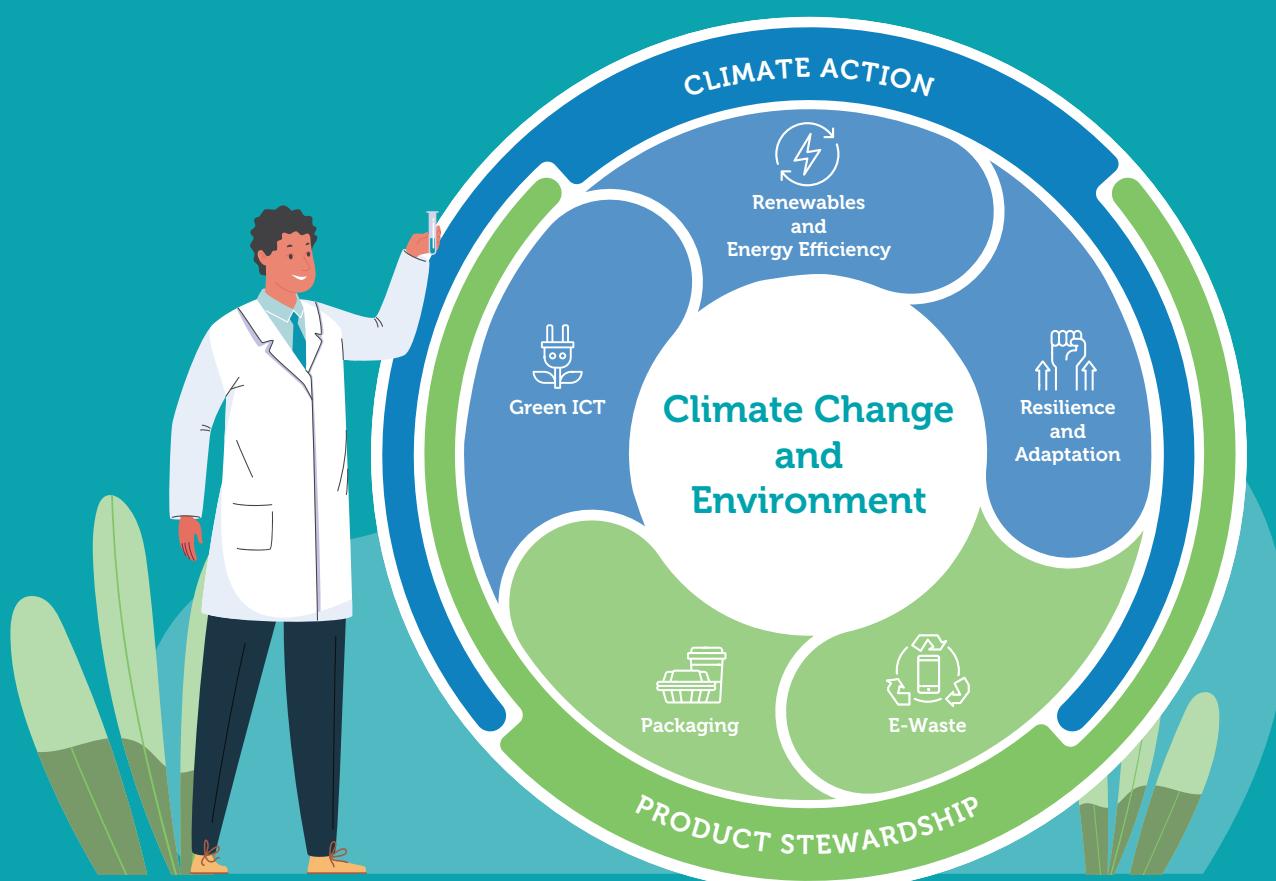


Figure 1: Singtel Group's Environment Strategy

Our environment and climate action strategy is guided by our Environmental Management System and Environment Policy to manage and minimise our environmental impact. Please refer to our [website](#) for more information.

The subsequent sections describe how we intend to meet and exceed these expectations.

CLIMATE ACTION

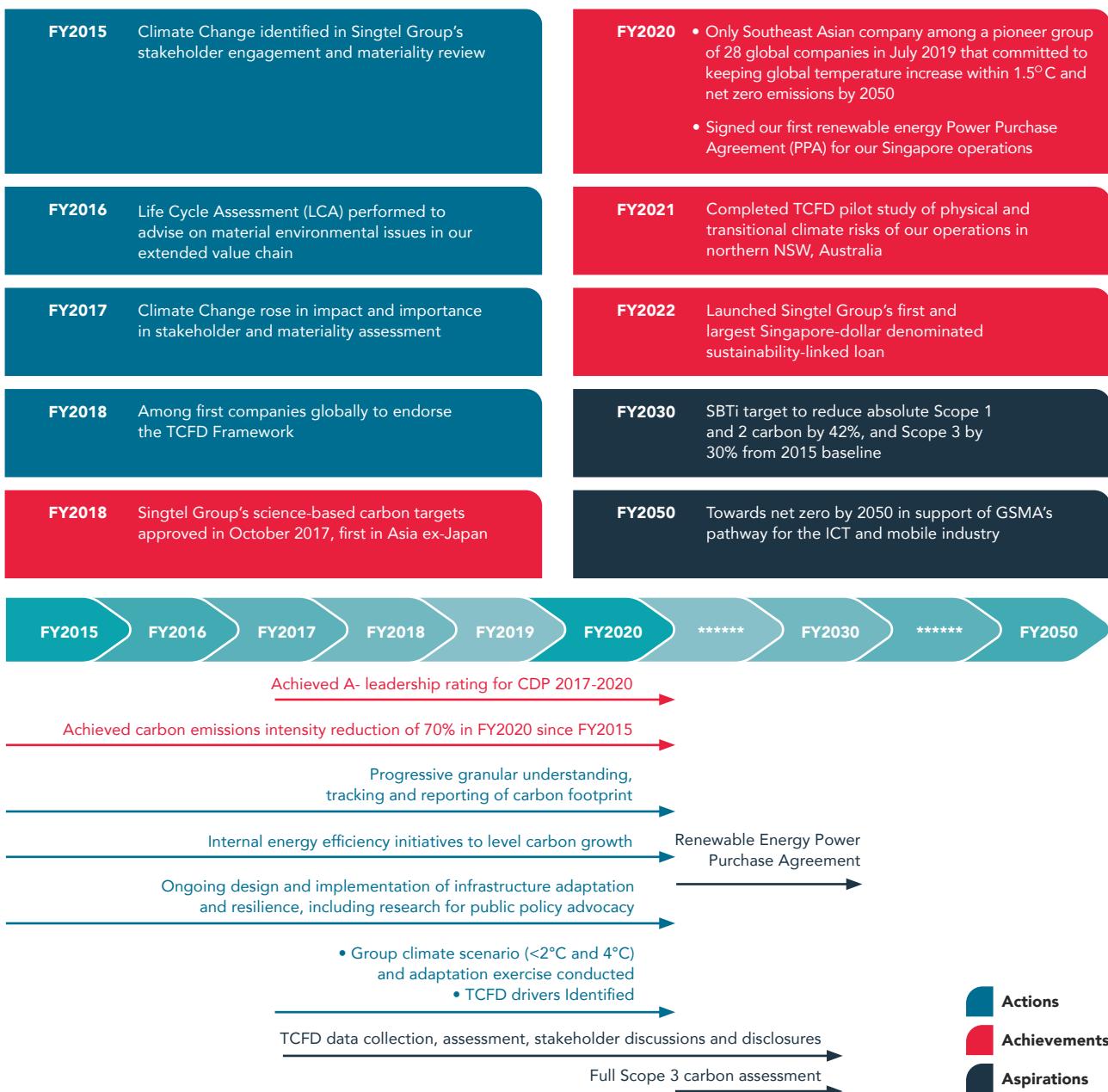
Advancing the climate agenda in alignment with the TCFD framework

The topic of climate change and environment has always been an important agenda for the Singtel Group since it first appeared on our materiality register in 2014. We have been refining our approach in tackling both risks and opportunities of climate change over the years

and view it as a continuous improvement process. This has allowed us to achieve critical milestones in our climate action and environmental journey, which in turn provides us with a clearer view to make informed business decisions.

We understand the importance of communicating how we manage our climate-related risks and opportunities to maintain stakeholder trust and confidence. As one of the first companies globally to endorse the TCFD framework in 2017, which aims to help financial institutions and investors understand the financial implications of climate risks on businesses, we had earlier structured our climate risks and management approach according to TCFD guidelines. It will provide our stakeholders with a comprehensive view of our risk assessment and climate strategy. This disclosure format is another step of our commitment to accelerate action and progress for this agenda.

Figure 2: Singtel Group's Climate Action Journey Towards Net Zero by 2050



Singtel Group's TCFD alignment and highlights

1. Governance

The Singtel Group has put in place governance structure and processes that effectively engage the Board, management and working groups through robust discussions and reviews. This ensures that material climate-related issues and opportunities across the geographies we operate in are adequately addressed through science-based analysis and action.

The Risk Management Committee and the Board Risk Committee review climate risks, while the Singtel Board is briefed on climate risks using the TCFD Framework.

Designated members of the Singtel Management Committee provide oversight and stewardship on Singtel Group's carbon reduction strategy.

From FY2021, climate-related KPIs formed 20% of ESG KPIs for our top management's long-term incentive.

2. Risk assessment and management

We continue to strengthen our understanding of climate risks and opportunities, and their corresponding impact on the business through assessment, research and partnership. We clearly define our physical and transitional risks by considering different scenarios, variables and drivers in our business, as well as the broader business and regulatory environment. This informs our strategy, investment decision and business operating model to ensure that we are resilient to the impact of climate change.

In preparation for a nationwide TCFD exercise in Singapore and Australia in FY2022, we undertook a pilot study of a physical and transitional climate scenario analysis in Northern Rivers, a high-risk region in New South Wales, Australia, to identify material drivers and indicators.

The relatively limited damage to our networks during the massive Australian bushfire and floods between 2019 and early 2021 demonstrated that we can effectively mitigate against physical risks from climate change through proactive and progressive upgrades using adaptive network design considerations.

Transitional risks related to 'policy shocks' such as energy efficiency standards or carbon neutral data centre operations are the greatest operational risks in the short term, even if addressable over the longer term. Other transitional risks such as supply chain and decarbonisation risks are manageable over the longer term, even against the extreme scenarios of global warming.

3. Strategy and target formulation

To secure a sustainable future for both the planet and our business, the Singtel Group takes a comprehensive and proactive approach in designing and building climate and business resilience into the core of our corporate strategy and operations. We set long-term ambitions to guide mid and short-term targets – aligned through science – to guide our climate strategy and plans. We perform scenario analysis to ensure that our decisions remain robust against the dynamic nature of climate risks and global agenda. We forge collaborative partnerships and constantly innovate because climate risks cannot be addressed by a single party or with conventional thinking.

Decarbonisation strategy

One, three and five-year carbon and renewable energy targets established to shape our renewable energy PPA tenders to be issued to market in FY2022.

Partnerships

Undertook an Australia-wide bushfire risk prediction analysis in partnership with CSIRO to determine proactive mitigation and adaptation measures for mobile base station and shelters.

Innovation

Research partnership with Australian National University to develop advanced image sensing capability for early detection of bushfires in Australia.

4. Metrics

We publicly disclose our environmental targets and metrics aligned with GRI as well as our performance data which is externally assured. Our stakeholders can therefore better understand our efforts and progress in this area. We will also communicate any material driver and impact on the company's income statement, cashflows or balance sheet using the TCFD framework.

The following sections share in greater detail our governance approach, risk and opportunity assessment framework, strategy, targets and metrics for climate action.

1. Governance

We have a clear reporting structure to review climate risks and opportunities across Singtel Group, aligned with the overall sustainability governance framework for the company as outlined in Figure 3 and Table 1.

Figure 3: Singtel Group's Sustainability Governance Structure

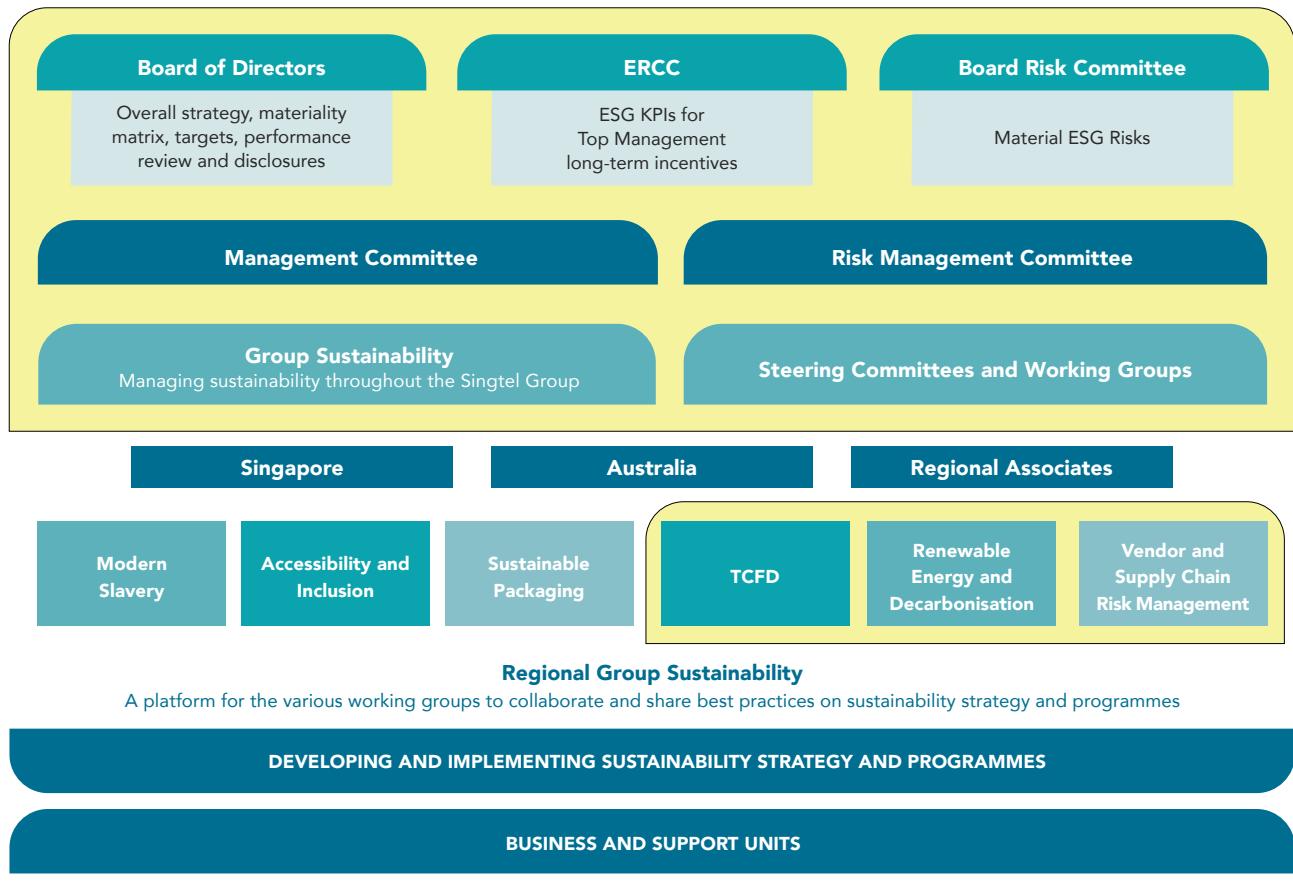


Table 1: Climate Specific Committees and Taskforce

	RESPONSIBILITIES
Renewable Energy Steering Committees	<ul style="list-style-type: none"> Review and guide the strategy, performance and key decisions relating to our renewable energy strategy.
TCFD Taskforce	<ul style="list-style-type: none"> Oversees the preparation and analysis in alignment of the TCFD framework of disclosures. Working Group members comprise networks, risks, finance, property, energy and sustainability representatives. Progress and outcomes are reviewed by the Risk Management Committee before review by the Board Risk Committee.



2. Conducting climate risk assessments

Over the years, the Singtel Group has conducted various risk and impact assessments to gain a comprehensive understanding of the climate risks, including natural and man-made events, that have an impact on our business. Figure 4 on page 20 summarises our perspectives of these risk and opportunities as well as our strategy.

01 Carbon footprint exercise

FY2012: We began our carbon footprint exercise to account for Scope 1, 2 and 3 emissions across our operations and continued to update this annually. It included additional elements of Scope 2 and 3 emissions from our base stations and property including rented offices to provide a more accurate picture of our emissions.

FY2013: We widened our scope of carbon footprint calculations and undertook an extensive exercise to estimate the impact of our employees' commute to and from their workplace in Singapore, covering distance, types of transportation and emission factors.

From FY2022: We will refresh our Scope 3 carbon analysis by revalidating all 15 categories of carbon in our value chain.

02 Materiality assessment

We conduct a formal materiality assessment every five years to identify material environmental areas of concern across our business and follow up with targets to ensure our sustainability strategy is focused on areas where we can make the biggest positive change. It is based on four key sources:

- Ongoing stakeholder engagement
- In-depth survey with management and external stakeholders
- Life cycle assessment (LCA)
- Peer review and benchmarking

FY2010 and FY2014: In FY2010, we conducted our first assessment to identify material environmental issues that reflected the sustainability landscape for Singtel at that time. In FY2014, we performed a Group-wide assessment to include our operations in Australia which resulted in two strategic themes of Climate Change and Energy Management as well as Product Stewardship, our two material environmental topics. In the same year, we updated the Singtel Group Environment Policy, established a new environment strategy and revised our environmental governance structure.

FY2017 and FY2021: We undertook an interim materiality assessment in FY2017 and our third formal materiality assessment for Singtel and Optus to identify any major shift in priorities and emerging areas of concern to reflect the ever-changing landscape and evolving interests and needs of our stakeholders. Climate-related risks were considered the most important/high impact compared to FY2017 which was of moderate importance/high impact.

03 Life cycle and supply chain sustainability assessments

We conduct life cycle and supply chain sustainability assessments to consider environmental risks across our supply chain. We also review and update our Supplier Code of Conduct with environmental considerations, as part of and to supplement the materiality assessment findings.

FY2016: We carried out our first environmental LCA in FY2016 across our Singapore and Australia operations to better understand the material environmental aspects throughout our extended business networks. We identified that our supply chain (Scope 3) constituted two-thirds of our Group's carbon footprint. This insight was essential as this formed the basis for setting the Group's Scope 3 science based carbon targets which was approved by SBTi in October 2017 (see page 16). We updated our Supplier Code of Conduct to address key issues identified by LCA, particularly in the area of climate change, carbon and waste management, and clarified expectations in new contracts with our main suppliers.

FY2021: We updated our organisational LCA to identify any new or emerging issues in our value chain (see pages 55-56).

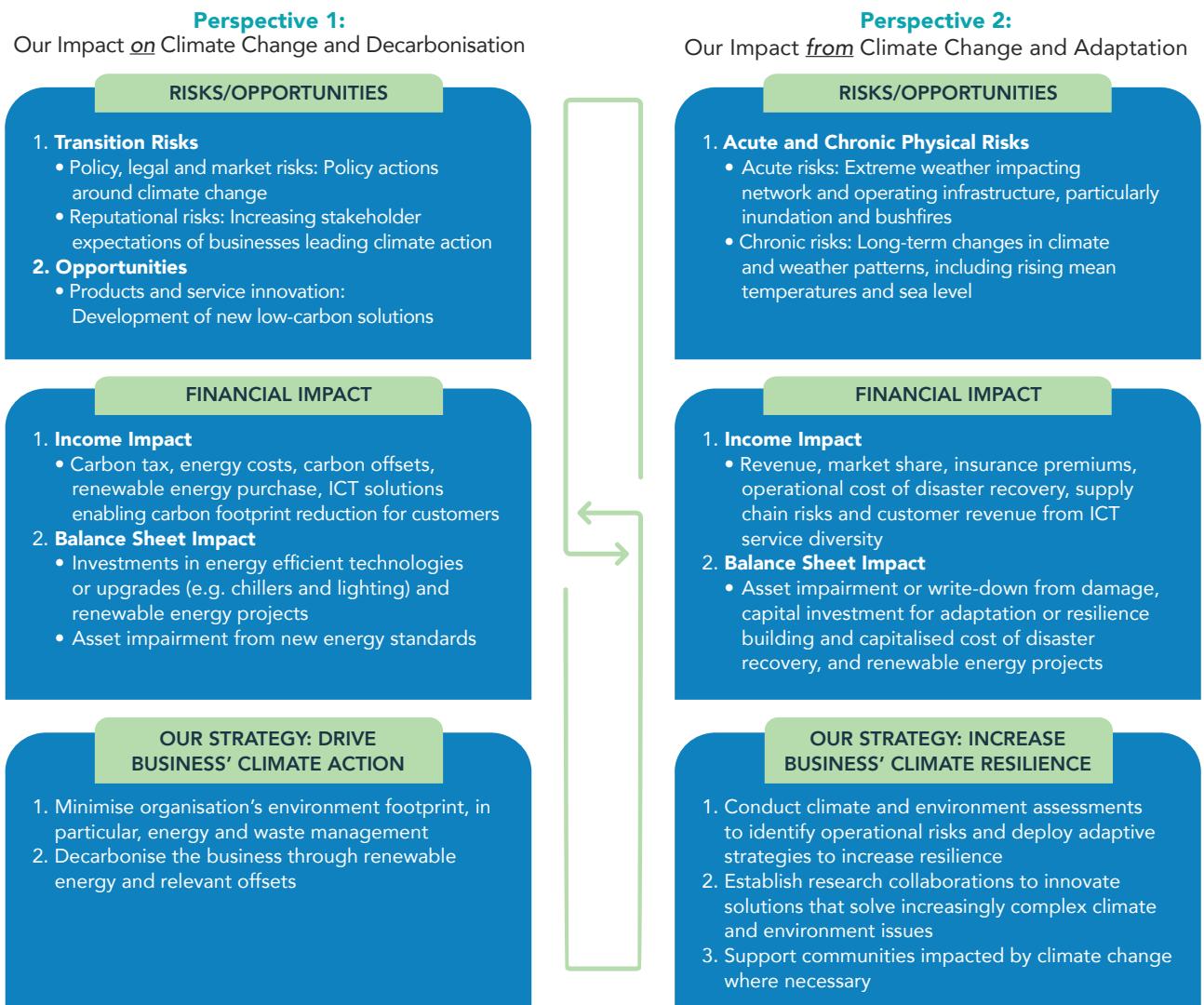
04 Climate scenario assessment and adaptation exercise

FY2016: We commenced our first climate scenario assessment and adaptation exercise for our Singapore and Australian operations, working with CSIRO and our consultant when the issue of climate risk first emerged as a material priority for our stakeholders. See Table 4 on page 25, where we highlight our strategic initiatives in response to the physical risks assessment that we conducted.

FY2021: We built on FY2016 findings, updated and widened our scenario planning with a pilot in Northern Rivers region, New South Wales, Australia to refine the modelling and validate the material drivers and assumptions that have an impact on the company's financials as a result of both physical and transitional risks (see pages 20-22).

FY2022: We plan to expand our climate scenario research to a national level study for Australia and Singapore in FY2022. We will also work with our regional associates on their preparations for TCFD.

Figure 4: Singtel Group's View of Climate Risks, Opportunities and Financial Impact



Preparing for Enhanced TCFD

What : A pilot exercise for TCFD scenario analysis

Where : Northern Rivers region, New South Wales, Australia

Why : To update our Physical Risks from climate change and establish our first view of Transitional Risks to a low carbon economy

In the second half of FY2021, we undertook a detailed and bottom-up pilot programme to conduct a financial driver and materiality modelling assessment of both physical and transition climate impacts on the Northern Rivers and other regions in New South Wales, Australia.

The outcomes would enable us to improve our understanding of the business' overall risk profile in relation to Optus and Singtel Group's financials. We can then use the knowledge and implement specific actions to improve our resilience to climate change within the Northern Rivers region where we have seen major changes in climatic patterns over the past decade.

More importantly, the exercise helped us to identify key climate scenarios and design and planning parameters in network deployment which will be applied to an Australian nationwide exercise next year. We also identified the most material transitional risks under extreme scenarios and over different time periods, which will inform our strategy in managing and mitigating transitional risks related to transition to a low carbon economy across the Singtel Group.

Methodology

We carried out climate scenario and risk analysis using three different climate scenarios:

Scenario 1: Orderly transition with warming limited to 2°C by 2100 (RCP 2.6)

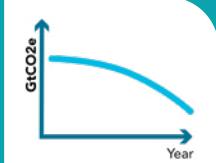
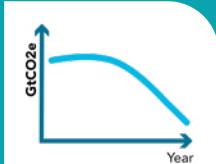
Scenario 2: Disruptive decarbonisation with warming limited to 2°C by 2100 (RCP 2.6)

Scenario 3: Delayed action with warming exceeding 4°C by 2100 (RCP 8.5)

Scenarios and Time Horizons

We looked at the possible impact over three time-horizons: short (2030), medium (2040), and **long-term (2050 and beyond)** to better understand the following: (a) Alternative views of future climate trajectories (b) Key areas in our value chain likely to be affected (c) Robustness of our existing strategies and (d) Opportunities to proactively undertake mitigations.

We used scenarios 1 and 2 to stress test the transition impact on our business, as they presented policy transitions with the greatest business impact. We used scenarios 1 and 3 to stress test the physical impact on our business, as they presented a range of physical climate impact on our business. We then assessed each scenario over the three time-horizons.

Scenario	Description
Scenario One: Orderly transition <i>Warming limited to 2°C by 2100 RCP 2.6</i> 	The global community agrees on the need to decarbonise. Global harmony achieves warming limited to 2°C in an orderly transition. This glide path, which is the least-cost option, will best protect economically sensitive regions from the physical and financial implications of climate change.
Scenario Two: Disruptive decarbonisation <i>Warming limited to 2°C by 2100 RCP 2.6</i> 	Decarbonisation occurs in the same timeframe as the orderly transition scenario. However, the path is different, less cost effective and more disruptive. The lack of an early and clear pathway from the Australian and other governments on climate policy results in status quo followed by a series of policy shocks from 2030 to accelerate the progress of climate action.
Scenario Three: Delayed action <i>Warming exceeds 4°C by 2100 RCP 8.5</i> 	No policy implementation or intervention to support an economical transition towards decarbonisation within the Australian economy. Physical impact of climate change and natural disasters are the most prominent under this scenario.

Key insights from pilot exercise

(A) Transition risks and opportunities*

*The transition impact assessment was based on best available information, subject to certain assumptions and limitations. For example, as the Earnings Before Interest and Tax (EBIT) specific to Northern Rivers region was limited, the Northern Rivers revenue as a percentage of total Singtel Group revenue was used as a proxy before factoring new 5G rollout and Data Centres to calculate the apportionment of EBIT to establish an initial baseline for downstream refinement.

Based on qualitative and quantitative assessment, we identified three transition risk levers that potentially would have the most impact on our business without any intervention or mitigation. We then outlined our strategic response to each risk lever. Overall, early action poses a lower level of economic disruption, especially over the next ten years (see Table 2 on page 22).

(B) Physical risks and opportunities*

*The physical impact assessment was based on best available information, subject to certain assumptions and limitations. For example, the assessment focused on current assets and did not account for planned assets for 5G rollout and new data centres which we have the opportunity to factor in updated adaptation and design principles.

We performed this assessment at an asset level, overlaying local climate hazards, asset costs and our business assets' cross-dependencies. We analysed 2,500

assets across six physical hazards: coastal inundation, forest fire, riverine flooding, extreme heat, extreme wind (storms) and soil contraction (drought).

- 1) Overall, forest fires, and coastal and riverine inundation are critical hazards we should focus our resilience efforts on.
 - Forest fires are projected to have the highest financial impact on capital expenditure for asset repair or replacement in 2030 and 2050.
 - Risks from coastal and riverine inundation are expected to moderately increase in 2030 and 2050, with the highest financial impact projected in 2100.
- 2) Site towers and site shelters are the asset types projected to incur the highest average Technical Insurance Premium due to physical climate change, increasing from about A\$2,000 to A\$4,000 per asset from 2030 to 2050 without proactive and adaptive network design and deployment.
- 3) Capital expenditure should be focused on network design and standards, and infrastructure resilience of site shelters and towers against forest fires in the near to medium term, and against coastal inundation in the long-term. We have since identified three critical sites due to their coastal locations, forest fire risk or high dependencies of the business on these sites.

Table 2: Transition Risk Levers, Business Impact and Response

Lever	Risk level of findings*	Potential impact on business without mitigation	Singtel Group's strategic response and mitigation
Capital allocation Impact due to early retirement of energy intensive network and data centre assets to facilitate the transition to a low-carbon economy.	Material risk: Under scenarios 1 and 2, capital allocation poses the most material downside risk out of the three levers due to policy uncertainty leading to abrupt retirement of less energy-efficient network assets under a scenario of extreme policy shock.	Policy uncertainty over energy efficiency requirements may lead to abrupt retirement of less energy-efficient network assets in a policy shock, causing material financial impact at the EBIT level around FY2030.	We regularly conduct early planning into capital upgrades and always adopt the most energy efficient technologies in our networks and data centres to minimise the need for early retirement of our network assets. We are well advanced in our legacy chiller replacement programme, resulting in significant carbon abatement.
Counterparty risk Impact due to other parties within Optus' supply chain defaulting on contractual obligations during the transition to a low-carbon economy.	Minor to Moderate risk: Counterparty risk poses the smallest risk to our business, due to the maturity of our current climate ambitions and actions of our major suppliers.	Net impact on EBIT is minor in the orderly transition scenario, and moderate in the disruptive decarbonisation scenario.	We will continue to be proactive in our climate ambitions and encourage our suppliers to do the same.
Carbon pricing Impact due to carbon pricing, an instrument that levies a cost to companies for their carbon emissions	Minor risk and potential for positive impact: Carbon pricing presents the least risk to our business in the mid-term due to advancement in the energy market and technologies.	Energy cost is less than 5% of total operating costs of Singtel and Optus even after factoring in growth scenarios and incremental carbon pricing scenarios. Potential positive impact on Optus' EBIT is expected in 2050, subject to certain assumptions for our pricing strategy. Negative net impact on EBIT is projected to be between minor for 2030–2040 and moderately positive around 2050 across the scenarios.	Increased carbon pricing is likely to drive acceleration of decarbonisation of the energy grid and economy at a more consistent rate. This will provide us with more opportunities and potential cost savings from early investment in low carbon technologies and products. We will also drive decarbonisation of our business as summarised in Figure 5 on page 23.

* For purpose of our pilot TCFD financial materiality review, we defined 'Material' as >10% impact to EBIT, 'Moderate' is 5-10% impact to EBIT and 'Minor' is <5% impact to EBIT under extreme scenarios and shocks and assumed no mitigation was in place

Not without risks in Australia: Too fast too soon into renewable energy!



As companies look to accelerate their transition to low carbon, this is not without its share of transitional risks. In Australia, these risks include:

- a. Reliable energy generation from wind and solar farms due to variable weather conditions
- b. Lack of economical battery storage to guarantee supply given that critical telecommunications infrastructure requires reliable and consistent energy supply 24/7
- c. Legacy power transmission grid constraints limit full generation capacity of renewable energy projects
- d. Signing energy pricing contracts at a higher price with falling wholesale market or future price of renewable energy

For example in 2015, extreme fluctuations of wind and solar supply in South Australia combined with coal power plants shutdown led to critical shortage of energy supply and skyrocketing wholesale energy prices. In 2020, COVID-19 led to the collapse of world oil and gas prices resulting in significant reduction in wholesale energy prices. Some Australian companies that entered early into PPAs had to write down legacy renewable energy assets and account for derivative losses.

Example of Transitional Risks in Singapore: Carbon Neutral Data Centres?



A Singapore government moratorium was earlier issued that new data centre developments would be considered only from 2021. Data centres consume a huge amount of energy and are a key energy growth driver in Singapore given the increased in cloud services and the country's position as a regional data centre hub (Singapore is the second most attractive city globally according to Arcadis Data Centre Location Index 2021). Should a decision be made at a policy level that all new data centres must be fully carbon neutral, it could be an example of transitional risk to a low carbon economy.

3. Strategy and target formulation

The Singtel Group's climate strategy and targets are framed by two perspectives aligned with TCFD: our impact on and from climate change (see Figure 4). In the previous section, we described the key climate risks and opportunities, and their financial impact on our revenue and balance sheet, to help define our strategy in managing these risks and opportunities well.

We have earlier set 2030 SBTi-approved carbon reduction targets for our Scope 1, 2 and 3 emissions and net zero target by 2050. Our interim target is to achieve 25% renewable energy by 2025 for our Scope 2 needs in Singapore and Australia.

In this section, we articulate our efforts to support the strategies aimed at driving long-term business sustainability.

We adopt two broad strategies to drive climate action and resilience in response to the identified risks and opportunities. First, we will drive decarbonisation in our business (i.e. impact on climate change) to reduce our carbon emissions and enable transition to low carbon economy by providing innovative products and services to customers.

Second, we will increase our business' climate resilience through proactive adaptation (i.e. impact from climate change) to reduce impact from physical risks on our network infrastructure as a result of extreme weather events. This is to remain operationally resilient to serve the communication needs of our customers and communities.

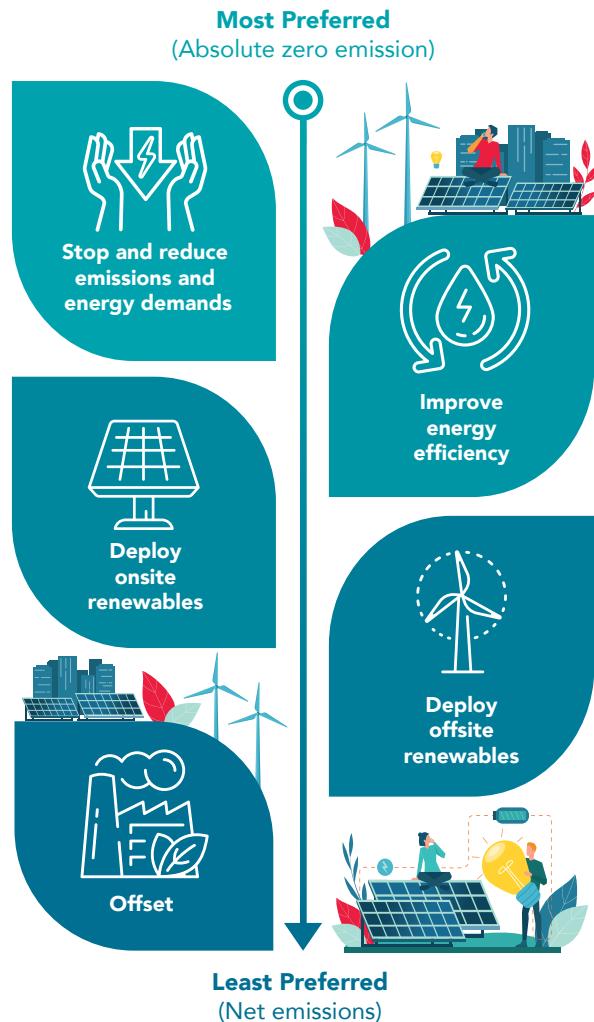
A) Addressing transitional risks through decarbonisation in our business

Our commitment to achieving a climate conscious future is demonstrated by the aggressive corporate decarbonisation goals and targets we have set. We were able to focus our actions on creating tangible and measurable impact over the years. Our options and priorities for decarbonisation are summarised in Figure 5.

a) Our energy efficiency and efforts

We have been working on several programmes targeting energy reduction across key energy intensive touch points of our operations in Singapore and Australia, such as network infrastructure, data centres, satellite earth stations and office buildings (see Table 3 on page 24). More details on our approach can be found at our [website](#).

Figure 5: Our Decarbonisation Options



b) Increasing use of onsite renewable energy deployment

Renewable energy has always been integral in the design and construction of our infrastructure. Since the installation of photovoltaic panels at our Pasir Ris Telephone Exchange in 2009, we have progressively increased the use of renewable energy in our infrastructure. In October 2019, we signed our first solar PPA in Singapore which saw the installation of a 1.65 MWp solar power system on the rooftop of our NCS Bedok Data Centre. The system, commissioned in March 2020, was one of the largest single-roof solar-powered data centres in Southeast Asia.

Table 3: Our Energy Saving Efforts in Singapore and Australia

Programme	Nature of programme	Progress in FY2021
Estimated energy savings and emissions avoidance:		
Replacing, overhauling and optimising chillers and related equipment	Over the years, we have been regularly replacing and overhauling chiller units and related Mechanical and Engineering (M&E) equipment at our exchanges and office buildings in Singapore, targeting those that have been in operation for 15 years or more. To date, we have replaced 16 of the 22 chillers. We also conduct major facility cooling plant upgrade in Australia.	<ul style="list-style-type: none"> Optimisation of chillers at exchanges and earth stations: 1,018 MWh/year (3,663 GJ/year) or 416 tCO₂e/year 
Retrofitting M&E equipment	We have made concerted efforts to perform energy optimisation on our Heating, Ventilation and Air-Conditioning (HVAC) system and retrofit thermal solar air-conditioning units in Singapore.	<ul style="list-style-type: none"> 16,563 MWh/year (59,625 GJ/year) or 13,084 tCO₂e/year 
Converting to energy efficient mobile base stations	We continue to upgrade our mobile networks in Singapore and convert to energy efficient mobile base stations. In Australia, we activate Power Saving Features during periods of low traffic in our base stations and centres such as implementing a Self-Organising Network.	<ul style="list-style-type: none"> Kim Chuan 2 Data Centre: 771 MWh/year (2,775 GJ/year) or 315 tCO₂e/year NCS Hub: 26 MWh/year (96 GJ/year) or 11 tCO₂e/year NCS Bedok Data Centre: 56 MWh/year (201 GJ/year) or 23 tCO₂e/year 
Technological update of power units	Rectifiers with 98% efficiency have been installed at all our mobile sites in Australia.	<ul style="list-style-type: none"> Achieved 99.68% energy efficient mobile base stations in Singapore 
Replacing Uninterruptible Power Supply (UPS)	We replaced eight conventional-type UPS to modular units at our data centres in Singapore.	<ul style="list-style-type: none"> 10,952 MWh/year (39,429 GJ/year) or 8,652 tCO₂e/year in Australia 
Switching to energy saving lighting	Concerted efforts made to retrofit to LED lightings in Singapore and Australia.	<ul style="list-style-type: none"> 3,738 MWh/year (13,457 GJ/year) or 2,953 tCO₂e/year in Australia 
Decommissioning unnecessary infrastructure	We will decommission and shut down any equipment and infrastructure that is not required, such as 2G mobile technology in Australia	<ul style="list-style-type: none"> Kim Chuan 1 Data Centre: 651 MWh/year (2,343 GJ/year) or 266 tCO₂e/year 
c) Deploy offsite renewable energy		
<p>We also launched UNBOXED, our 24/7 unmanned pop-up retail store, that is hybrid powered by solar. To date, 4,555 MWh solar energy has been generated by our various projects.</p> <p>We place strong focus on using renewable energy at our data centres which typically account for more than 50% of operating expenses. Next year, we will call for vendor proposals in Singapore and Australia to assess the technical and commercial feasibility of our corporate properties and equipment buildings with the most potential for solar deployment. This is also in line with supporting Singapore's Green Plan 2030 by quadrupling solar energy deployment by 2025.</p>		
<p>Onsite renewable energy will not make material impact to our decarbonisation efforts given limitations of property and facility space. Offsite renewable energy PPA is an essential part of our strategy over the next few years to achieve the Group's carbon reduction targets and ambition. However, Singapore has limited local renewable energy supply and Australia has certain risks linked to accelerated PPA deployment (see story on pages 22-23). Hence, we have decided on a risk-and-commercial balanced approach by staging the procurement of renewable energy over different projects and time periods.</p>		

In late 2020, towards the tail-end of a tender process for a major renewable energy supply for our New South Wales operations in Australia, COVID-19 and collapsing global oil and gas prices significantly undermined the viability of the tender offers which we decided not to award given the added commercial and project risks. We are reviewing our renewable energy roadmap for our Australian operations, factoring in the latest market outlook, and plan to call for a tender in FY2022.

In Singapore, we acquired a small supply of renewable energy through the purchase of Renewable Energy Certificates equivalent to 1,000 MWh of energy during the year. At the time of preparing this report, we were about to call for a tender for renewable energy supply in line with our decarbonisation targets for our Singapore operations. We target to achieve 25% renewable energy by 2025 for our Scope 2 needs in Singapore and Australia, to be in line with our 2030 SBTi carbon reduction targets.

d) Carbon offsets

We have always viewed carbon offsets as a last resort for hard to achieve Scope 2 decarbonisation, or only for the purpose of offsetting Scope 1 and Scope 3 emissions. Non-renewable energy carbon offsets are also not yet recognised by SBTi for the purpose of meeting Scope 2 reduction targets. To date, we have not acquired any carbon offset but we are monitoring the standards, accounting treatment, government recognition and other developments closely and will review our position. In FY2022, we will undertake an updated assessment on all categories of our Scope 3 carbon footprint.

e) Leveraging Green ICT

We constantly explore the unique catalytic role of smart mobile technologies in reducing energy consumption and emissions beyond our industry to benefit other sectors of the economy.

Mobile technology innovations in the areas of connectivity, data centres, big data and IoT enable the development of energy efficient solutions that can be applied across industries, thus advancing the global climate progress. This is discussed in depth in a report called 'The Enablement Effect: The impact of mobile communications technologies on carbon emissions reductions' published by GSMA.

Our reliable network and ICT services and solutions enable our corporate customers to telecommute and maintain productivity, while lowering carbon emissions from reduced transportation.



Optus achieved a re-accreditation of ISO 22301 for our Business Continuity System, a global acknowledgement of our ability to sustain critical business functionality during any disaster or pandemic.



B) Addressing physical risks through network adaptation for resilience

The climate risk agenda first surfaced as a material topic to our stakeholders in FY2015, and we have since intensified our research and application of viable innovations and technologies over the years to improve business resilience and continue to serve our communities in times of disasters.

We leverage insights from studies to proactively adapt and ensure maximum resilience of our network infrastructure. We also use a combination of internal subject matter experts and climate modelling to identify key network interconnection and vulnerabilities from extreme rainfall intensity and temperature changes on our network.

As a result of our 2015 climate scenario analysis, we undertook numerous adaptations across our Singapore and Australia operations to build resilience to natural disasters and long-term climate scenarios (see Table 4). We have progressively adapted our infrastructure design and standards to long-term climate scenarios like increased inundation risks, stronger cyclonic activities, rising temperatures and higher bushfires frequency in Australia.

Table 4: Climate Adaptation and Infrastructure Resilience Efforts

Singapore	Australia
<ul style="list-style-type: none"> • New facilities built at minimum five metres above sea level • Raising equipment rooms at legacy low-lying flood-prone sites • Installation of anti-back flow device at discharge outlets • Installation of flood gates at the entrance of M&E equipment rooms 	<ul style="list-style-type: none"> • Raising equipment rooms at low-lying flood-prone sites • Moving alternating current (AC) power feeds to higher level in buildings • Improving the battery capacity of electricity main supply (from 4 hours to 8 hours) • Generators capacity from three days to six-seven days • Replanning critical radio links to build redundancy paths • Increase SATCATs, 'COWS' and Community Trucks • Research into imaging and drone tech for early bushfire detection

Research and industry partnerships

The Singtel Group collaborates with partners on innovation and technology to build resilience and capabilities against catastrophic events. We embark on research collaboration and engage subject matter experts at industry and national levels to gather intelligence on climate risks and impact. The insights gathered help prepare us to build resilience through the integration of natural and social science, engineering and other disciplinary approaches to build capacity for climate adaptation and resilience so that we remain ready to respond to any climate-related disruption.

In Australia, as a founding member of the Australian Business Roundtable for Disaster Resilience & Safer Communities, we contribute at a policy and research level to build the country's climate and disaster risk reduction knowledge. We are actively involved in the National Disaster Risk Reduction (NDRR) Industry Advisory Forum to shape the implementation of Australia's first NDRR Framework. We also actively monitor and engage in the regulatory development relating to reporting and carbon emission taxes, as well as provide annual comprehensive energy reporting to the National Green Energy Regulator (NGER).

Late last year, we announced a trial to use ground sensing cameras to improve the speed and accuracy of fire detection and response. This was a collaboration with the Minderoo Foundation, the Australian Capital Territory Rural Fire Service (ACT RFS) and the Australian National University (ANU). Currently, ACT RFS detects bushfires through visual monitoring from towers. The cameras would be placed on fire towers across ACT and operate 24/7. Data from this trial would assess the viability of automated monitoring for early bushfire detection on a national scale.

The ANU-Optus Bushfire Research Centre was also set up to develop a national system to detect bushfires early and put them out within minutes. We have since progressed in the development of an autonomous ground-based and aerial fire detection system through a constellation of satellites to complement the fire detection system to spot and track fires and deploy extinguishing technologies. The programme will run until 2024.

At the industry level, we exemplify environmental thought leadership by playing a leading role on the GSMA Board and Climate Action Committee, helping to chart the strategic direction in tackling climate change for the ICT and mobile industry. GSMA is an industry organisation that represents the interests of over 750 mobile network operators. At the country level, we actively partner governments and national agencies to understand emerging risks, policies and regulations. In Singapore, we engage the National Climate Change Secretariat and Centre for Liveable Cities as part of 100 Resilient Cities. We also lead business engagement and participate in business roundtables to share and discuss climate risks, TCFD and SBTi.

PRODUCT STEWARDSHIP

Singtel Group's approach to product stewardship considers the impact of our products and services before they reach our stores, during our operations and after their useful life. We have a range of initiatives in place to minimise our environmental impact in two significant areas: waste management and sustainable packaging.

Facilitating effective waste management

Electronic, packaging and corporate wastes such as paper are key sources of wastes generated across our operations and value chain. We are committed to reducing, reusing and recycling wherever possible and fully support the national waste management targets like Singapore's Zero Waste Masterplan 2030 and Australia's Recycling and Waste Reduction Act 2020.

Recycling e-waste

There are global concerns around e-waste being one of the fastest growing categories of waste today. We have been partnering Mobile Muster since 1998 to facilitate the recycling of mobile devices and accessories via our Optus stores. During the year, we diverted 3,394 kg of e-waste from landfills, saving 7.27 tonnes of carbon emissions while conserving 37.11 tonnes of mineral resources as a result of the programme. We also launched a modem recycling programme to supplement Mobile Muster for customers to recycle their old modems at any of our retail stores in Australia.

In Singapore, ReCYCLE, our self-initiated nationwide e-waste recycling programme in partnership with SingPost since 2017, collects and recycles e-waste like mobile phones, chargers, laptops and tablets by recovering reusable metals and components that include copper and aluminium. To date, more than 68,167 kg of reusable metals and components have been collected through our programme. ReCYCLE will be withdrawn from the market as Singtel joins a new regulated e-waste management system in Singapore introduced by the National Environment Agency (NEA) from 1 July 2021.

Enabling Sustainable Packaging

Sustainable packaging directly and indirectly contributes to our carbon footprint and environmental impact across our value chain, from resource utilisation to product packaging and management of their waste streams.

In Singapore, we have begun preparatory work for submission of our packaging data and 3R plans annually to NEA from 2022. We have been committed to the principles of the Australian Packaging Covenant Organisation (APCO) since 2007 to drive systemic change in the way we create, collect and recover our product packaging. Internally, we have developed a Sustainable Packaging Strategy with goals aligned with the National Packaging Waste targets to make all packaging 100% reusable, recyclable or compostable by 2025. For the fourth consecutive year, Optus was awarded the APCO Award for our sustainable packaging achievements and efforts in the telecommunications sector.

Environmental Performance Indicators

ENVIRONMENT	SINGTEL			OPTUS			SINGTEL GROUP		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Total energy use (GJ)	1,602,698	1,466,802	1,347,094	1,909,806	1,834,722	1,749,622	3,512,504	3,301,524	3,096,716
Total energy use (MWh)	445,194	407,445	374,193	530,501	509,645	486,006	975,695	917,090	860,199
Energy intensity (GJ/\$\$million revenue)	214	180	161	234	219	194	225	200	178
Energy intensity (GJ/TB*)	0.25	0.30	0.35	0.35	0.49	0.59	0.30	0.38	0.46
(i) Electricity use (GJ)	1,575,412	1,448,584	1,323,825	1,885,253	1,805,476	1,719,144	3,460,665	3,254,060	3,042,969
Electricity use (MWh)	437,614	402,384	367,729	523,681	501,521	477,540	961,295	903,905	845,269
(ii) Fuel use (GJ)	18,902	16,748	22,877	24,089	28,782	30,014	42,991	45,530	52,891
Fuel use (MWh)	5,251	4,652	6,355	6,691	7,995	8,337	11,942	12,647	14,692
(iii) Solar energy (GJ)	8,384	1,470	392	464	464	464	8,848	1,934	856
Solar energy (MWh)	2,329	408	109	129	129	129	2,458	537	238
Purchased Renewable Energy Certificates (MWh)	1,000	N.A.	N.A.	0	N.A.	N.A.	1,000	N.A.	N.A.
Total carbon emissions (tonnes CO₂ equivalent)¹	165,331	162,566	164,629	442,455	427,706	418,060	607,786	590,272	582,689
(i) Scope 1	5,749	3,741	4,085	1,894	2,140	2,567	7,643	5,881	6,652
Refrigerants	4,369	2,545	2,455	215²	134 ²	470 ²	4,584	2,679	2,925
Fuel combustion	828	484	733	364	304	291	1,192	788	1,024
Company fleet	552	712	897	1,315	1,702	1,806	1,867	2,414	2,703
(ii) Scope 2	158,687³	153,650	154,152	426,564	412,932	402,290	585,251³	566,582	556,442
(iii) Scope 3	895	5,175	6,392	13,997	12,634	13,203	14,892	17,809	19,595
Contractor fleet	301	254	411	9,385⁴	1,138	1,264	9,686	1,392	1,675
Air travel	4⁵	3,040	4,000	95⁵	4,853	5,738	99	7,893	9,738
Employee commute	441⁶	1,731 ⁷	1,821	4,517⁸	6,643 ⁷	6,201	4,958	8,374	8,022
Retail franchisees	149	150	160	N.A.	N.A.	N.A.	149	150	160
Carbon intensity (tCO₂e/\$\$ million revenue)	22	20	20	54	51	46	39	36	34
Carbon intensity (tCO₂e/TB)⁹	0.0260	0.0325	0.0416	0.0778	0.1102	0.1395	0.0501	0.0665	0.0845
Potable water use (m³)¹⁰	623,588	683,847	620,864	47,262¹¹	57,861 ¹¹	63,261	670,850	741,708	684,125
Use of recycled water instead of potable water (m³)¹²	225,453	180,799	132,374	13,027	10,876	15,513	238,480	191,675	147,887
Water intensity (m³/\$\$ million revenue)	114	106	91	N.A.	N.A.	N.A.	58	56	48
Total waste (tonnes)	4,150	7,658	7,538	771¹⁴	883 ¹⁴	2,294 ¹⁴	4,921	8,541	9,832
Non-hazardous waste	1,047	1,567	2,130	446¹⁴	690 ¹⁴	1,683 ¹⁴	1,493	2,257	3,813
Hazardous waste	3,103	6,091	5,408	325¹⁴	193 ¹⁴	611 ¹⁴	3,428	6,284	6,019
Waste diverted from disposal by recovery operation (tonnes)¹³									
Non-hazardous waste: Preparation for reuse / Recycling	162	N.A.	N.A.	129¹⁴	N.A.	N.A.	291	N.A.	N.A.
Hazardous waste: Preparation for reuse / Recycling	2,866	N.A.	N.A.	323¹⁴	N.A.	N.A.	3,189	N.A.	N.A.
Waste directed to disposal by disposal operation (tonnes)¹³									
Non-hazardous waste: Incineration (with energy recovery)	885	N.A.	N.A.	0	N.A.	N.A.	885	N.A.	N.A.
Hazardous waste: Incineration (with energy recovery)	237	N.A.	N.A.	0	N.A.	N.A.	237	N.A.	N.A.
Non-hazardous waste: Landfilling	0	N.A.	N.A.	317¹⁴	N.A.	N.A.	317	N.A.	N.A.
Hazardous waste: Landfilling	0	N.A.	N.A.	2¹⁴	N.A.	N.A.	2	N.A.	N.A.
Customer e-waste recycling (tonnes)	47	66	63	3	4	4	50	70	67

* TB refers to terabyte of data transported across our network.

- The carbon emissions reported in the table are based on the reporting requirements of the WRI and WBCSD 'GHG Protocol Corporate Accounting and Reporting Standard'. The equivalent CO₂ emissions for electricity use are calculated based on the updated simple operating margin grid emission factors from the National Environment Agency and electricity supplier emission factor in Singapore for the relevant time period and from corresponding states in Australia. Scope 1 direct emissions and Scope 3 indirect emissions are calculated using BEIS (Department for Business, Energy & Industrial Strategy) Greenhouse gas reporting: conversion factors 2020 and NGERS.
- Optus uses combination of air, water and refrigerant cooling systems.
- Scope 2 emissions are reported using a market-based method in accordance with the GHG Protocol.
- Includes deliveries to customers.
- The significant reduction in business air travel was due to travel restriction arising from the COVID-19 pandemic.
- The significant reduction in employee commute was due to the implementation of our work-from-home arrangement from April 2020 to March 2021, in response to the COVID-19 pandemic. Updated with FY2021 employees numbers.

7. Updated with FY2020 employees numbers. Optus data updated with new survey conducted in 2019 and applies to Optus Sydney campus.

8. Emissions reported is actual employee commute data and applies to Optus Sydney campus.

9. Covers Scope 1 and 2 only.

10. All potable water withdrawn from municipal third-party water supplies and categorised as freshwater. Water stress areas are not applicable as the company does not contribute to the country's ability, or lack thereof, to meet the human and ecological demand for water.

11. Covers Optus Sydney campus and Optus Melbourne offices only.

12. Recycled water is also categorised as freshwater and consists of NEWater and rainwater harvesting. NEWater is high-grade reclaimed water used mainly for operational activities such as cooling in Singapore. Rainwater harvesting is installed in Optus Sydney campus.

13. New GRI standards indicators tracked from FY2021.

14. Data covers waste directly managed by Optus' contracted waste vendor.

People and Future of Work

Our people are key to the Group's long-term growth and success. We strive to be a company where talented and motivated people continue to do great work.



ENSURING WORKFORCE SAFETY AND WELL-BEING

The health and safety of our people is paramount. Our commitment is to create a work environment that promotes employee well-being, and where they feel that they have autonomy in pursuing their personal and professional development.

When COVID-19 hit, we swiftly formed the Pandemic Control Committee that focused on business continuity planning and executing safe management and distancing measures to support our employees and customers. This included developing a COVID-19 staff portal to engage employees and provide them with a centralised source of pandemic-related news as we implemented various precautionary measures and issued regular advisories to update employees on the latest developments.

As local transmission escalated, workforce segregation was implemented. Across the company, we needed to quickly prepare the necessary hardware and software for our employees to work from home, ensuring they could access corporate systems remotely and avoiding disruptions to operations.

Gearing up on digital enablement for employee experience

The pandemic accelerated our digital transformation with focus on two key areas: deepening the digital-first mindset and advancing the digitisation of processes, while increasing employee empowerment.

We introduced telemedicine for Singapore employees, enabling them to consult a doctor virtually when ill and avoid health risks at the height of COVID-19 transmission in Singapore. Prescriptions were also delivered to employees' doorsteps and this was covered by our group medical insurance.

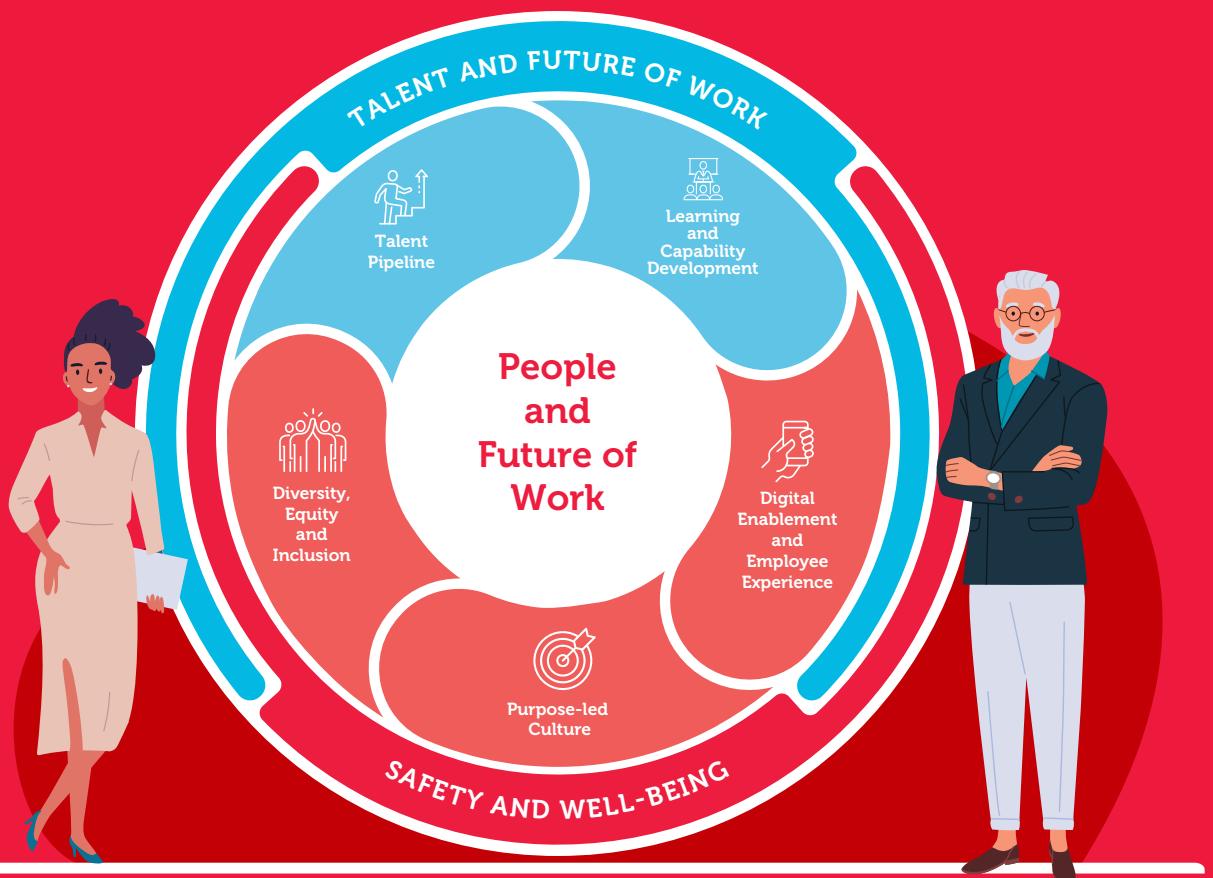


Figure 1: Singtel Group's People Strategy Framework

Welcome Aboard!

The first day of work could be daunting for some, especially when they were unable to meet colleagues and dived straight into working from home.

At Singtel, our new hires in Group IT received a warm welcome from the senior leadership team during their first week of work and got to know fellow colleagues – virtually!

Bevan Tan, who joined Group IT as a Senior Architect, said: “I am impressed by the onboarding process. Sabu Bhatia, VP of Digital Technology, greeted me and fellow new joiners in my first week. The experience was more personal than your typical onboarding, and it was interesting hearing Sabu share his personal experiences and how he was coping with working from home.”



We also launched iConnect, a platform which allows our employees to securely access all frequently used corporate apps via a single sign-on while on the move. This portal brings even more convenience and enhanced experience to employees.

The importance of employee experience was never more apparent than during the circuit breaker. We launched a weekly pulse survey to solicit feedback from our Singapore-based employees, especially after being away from the workplace for prolonged periods. Through data collected and analysis, we were able to understand and address the top concerns of remote-working employees, for example:

- 1) Time management and setting clear boundaries between work and personal time
- 2) Home conditions that were not conducive for working
- 3) Managers who were not empathetic
- 4) IT and connectivity issues
- 5) Increased mental stress and loneliness due to being cooped up at home

As a follow-up, respective business units brought forward workflow digitisation projects with urgency, and redesigned jobs to facilitate remote working and simplified systems access. We also took the opportunity to introduce virtual interviews as a regular feature for

candidate selection, reduce hiring paperwork which is now delivered electronically through DocuSign, and revamp the new hire orientation with e-onboarding (see boxed story, Welcome Aboard!).

Promoting employee well-being

In Singapore, we moved many of our employee events online. We organised our Mother’s Day 2020 event which saw management members and employees perform and pay tribute to mothers, Singapore National Day celebrations, as well as regular health and wellness webinars and live online fitness sessions.

About a thousand employees participated in activities that encouraged self-discovery and learnt coping strategies during our month-long Mindfulness Challenge held in conjunction with World Mental Health Day.

Throughout the circuit breaker, workplace counselling, under our Work Life Coaching Programme in Singapore and HR Critical Incident Hotline in Australia, was made available round the clock to assist employees and family members with various work-life balance and job matters.

Good employment practices

The Singtel Group employed 22,914 people, comprising 12,391 in Singapore, 7,687 in Australia and the rest based around the world as at 31 March 2021.

FIGURE 2: STAFF INJURY TYPES BY NUMBER AND GENDER

	SLIP, TRIP AND FALL	HIT BY FALLING OBJECT	LACERATION	MUSCLE STRESS	HOSTILITY	OTHERS
Singtel	6 cases M:3 F:3	1 case M:1 F:0	1 case M:1 F:0	0 case	0 case	2 cases³ M:2 F:0
Optus	5 cases M:3 F:2	0 case	0 case	10 cases¹ M:7 F:3	4 cases² M:4 F:0	1 case M:1 F:0

1. Refers to cases where employees experienced muscle tension while handling objects.

2. Involves assault by customers and threats by a member of the public wielding a knife.

3. Includes one case of a high consequence injury where an employee cannot, does not, or is not expected to recover fully to pre-injury health status within 6 months.

In Singapore, we abide by the Ministry of Manpower's (MOM) Employment Act and ensure that employment practices are aligned with the tripartite guidelines set by MOM, National Trades Union Congress (NTUC) and Tripartite Alliance for Fair and Progressive Employment Practices (TAFEP). In Australia, our industrial relations frameworks comply with the requirements of the Fair Work Act and ensure employees' rights to freedom of association.

We have fostered a very strong and collaborative partnership with the Union of Telecom Employees (UTES) in Singapore since its inception in 1982. As at 31 March 2021, we had 4,743 bargainable employees (38.3%) in Singapore covered by collective agreement and 2,629 employees (34%) covered by the Employment Partnership Agreement in Australia. We support NTUC's U Care Fund with an annual donation of S\$100,000. During the year, we disbursed S\$39,566 to 66 schooling children of our staff under the joint Singtel-UTES Bursary Awards scheme.

BUILDING A FUTURE-READY WORKFORCE

Talent development and future skills

The Singtel Group continued to invest significantly in our employees' training and development to the tune of S\$16.8 million for the year to keep our people agile and future-ready. Our annual Singtel Group Learning Fiesta 2020 was held completely virtually for the first time due to the pandemic. We saw a record-breaking 43,000 learning places taken up across our global footprint during the month-long event, representing a 60% increase from the previous year. Over 4,500 employees participated in tailored webinars and more than 3,500 engaged in specially curated channels in #CURIOUS, Singtel's mobile digital learning platform.

More employees across the Singtel Group leveraged online learning to acquire new knowledge while working remotely. With access to more than 100,000 curated courses, videos, e-books and audio books in #CURIOUS, employees were able to continue their learning journey and develop new skills without any disruption. Participation in #CURIOUS climbed 32% during the year.

Investing in our people

Unprecedented amounts of resources and energy were channelled into building capabilities this year. Our key initiatives included onboarding 535 trainees through the SGUnited Traineeship and SGUnited Mid-Career Pathways programmes and professional conversion of 700 existing roles with support from IMDA and Workforce Singapore (WSG). We also signed an agreement with IMDA to hire 250 mid-career people into tech-lite and deep-tech roles via the TechSkills Accelerator (TeSA) initiative, for which majority of the S\$30 million grant would be disbursed against training and salary costs throughout the 24-month on-the-job-training (OJT) curriculum.

To support Singtel's foray into emerging technologies such as AI/ML, and specifically 5G, an internal 5G Workforce Transformation Committee was set up to strategise, plan and execute a roadmap to train and convert 2,300 employees and 150 new hires over two

years, leveraging support from IMDA, WSG, SkillsFuture Singapore (SSG), National University of Singapore and Singapore Polytechnic (SP).

The two tertiary institutions will support the industry by developing 5G-related training courses and academic programmes. They will also collaborate with other tertiary institutions to provide hands-on training opportunities through 5G research laboratories and facilities, such as the 5G Garage at SP set up in collaboration with Singtel and Ericsson. Trainees will undergo structured training coupled with work experience with us to develop and hone their 5G domain expertise and related skills (read [more](#)).

We launched the NCS Academy with the aim to deepen capabilities in emerging technologies and structured technical specialist pathways. The NCS Nucleus 2.0 programme, now in its third year, has since onboarded 720 young technical talents specialising in software development and engineering. Another 400 have been targeted for onboarding over the next two years to meet business demands.

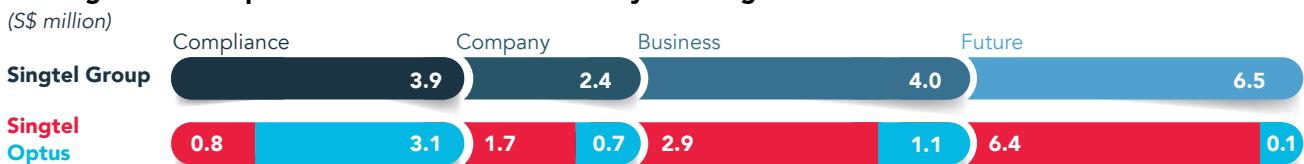
In Australia, we established Optus U for our employees to develop emerging skills. We partnered universities such as UNSW Business School and Macquarie University to provide curriculum, as well as organisations like Amazon Web Services and UiPath to deliver certified programmes. More than 100 employees have since undergone accredited qualification in areas like customer experience and data analytics.

Our close collaboration and strong relationship with UTES has continued throughout the years. We worked closely together through the Company Training Committee (CTC) to accelerate reskilling of our unionised employees in Singapore and also co-created pathways to help them transform their roles.

The CTC was jointly set up by Singtel, UTES and e2i in 2019 with the A.C.T. mission to Accelerate the skills acquisition of our employees, Co-create skills pathways with them and Transform their roles to be future-ready. In the area of workforce transformation, the CTC worked closely with our businesses to design role changes and equipped employees with new skills to take on the transformed roles, either through structured Professional Conversion Programmes or OJT.



Training and Development Investment Breakdown by Learning Pillars



Average Training Hours



Training and Development Investment

Singtel
FY2021: S\$11.8 million
FY2020: S\$14.6 million

Optus
FY2021: A\$5.0 million
FY2020: A\$7.8 million

Singtel Group
FY2021: S\$16.8 million
FY2020: S\$21.9 million

Talent attraction and retention

The key to securing Singtel's future capabilities is to identify digital talent early, enhance their experience and provide an environment where they can do great work. Investment in continuous development of existing leaders is also critical. With these in mind, we have maintained strategic partnerships with tertiary institutions and leading consultants in Singapore and Australia.

During the year, about 1,000 young talents were nurtured under various programmes, such as Singtel Management Associates, NCS Nucleus 2.0, Optus Graduates, scholarships, apprenticeships and internships. Creating a positive experience is an endorsement of our talent branding among the young and future leaders. Our Talent Ambassador Programme provides such a platform for our young talents to share with their friends and schoolmates their strong testament to an exciting career with us.

For our existing leaders, we piloted leadership development programmes, Nexus in NCS and ACE in our enterprise business unit, with about 600 leaders, and plan to roll out across the rest of Singtel next year. The curriculum is designed to strengthen their capability in leading with Accountability, leading Change and leading with Empathy. Coaching skills and guided practice workshops have also been incorporated, enabling leaders to adapt their leadership style, overcome cultural barriers and foster mindset change. Similarly, the Future Shapers programme was piloted in Optus Networks and Optus Enterprise units for our leaders in Australia.

Apart from learning and career development opportunities, we ensure that our remuneration and benefits policies, among others, remain competitive to attract and retain talents. Despite the tumultuous year, employee engagement was up 10% from a year ago in the annual Your Voice Survey 2020.

Supporting the SGUnited Traineeships and SGUnited Mid-Career Pathways Programmes

In June 2020, when the job market was adversely affected by the pandemic, the Ministry of Manpower (MOM) and Workforce Singapore (WSG) introduced the SGUnited Traineeships (SGUT) and SGUnited Mid-Career Pathways (SGUP) programmes to support graduates and mid-career individuals in boosting their employability and gaining new skills.

Under the programmes, we supported 535 trainees at both Singtel and NCS for up to 12 months and received an 80% grant from the government, estimated at S\$12 million in total, for stipends paid to our trainees. These trainees were deployed throughout the company in various business functions.

Given our active support, then Deputy Prime Minister Tharman Shanmugaratnam and former Manpower Minister Josephine Teo visited us on 15 December 2020. We shared how we drove recruitment, the types of roles available, our trainees' profiles and the various training programmes we provided to boost their employability.



Former DPM speaking with SGUT trainee Clarence Neoh, an Associate with Corporate Procurement

As at 31 March 2021, female employees accounted for 34% of our total workforce, comprising 35% in Singapore and 31% in Australia. They represented 28% of top management and 28% of middle management positions in the Group.

Figure 3: Female Executives in the Singtel Group

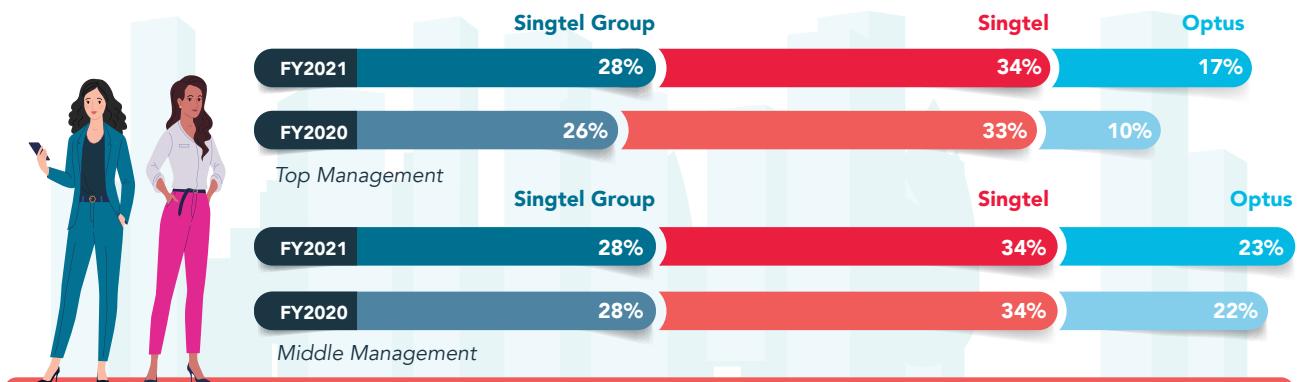
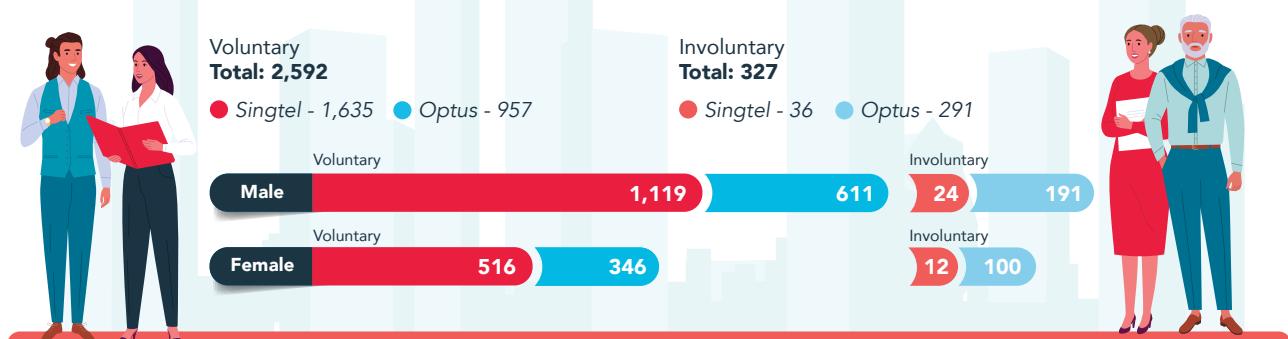


Figure 4: New Hires by Gender



Figure 5: Voluntary and Involuntary Turnover by Gender



Singtel Named Employer of Choice in Asia

Singtel was recognised as the Employer of Choice in Asia at the HR Fest Awards 2020 for being an all-rounder in our HR practices. We were lauded for our excellent work-life balance initiatives, rewards schemes, diversity and inclusion policies, talent management, succession planning and training and development programmes. This is a result of our strong focus on employee engagement as we recognise its correlation to employee and customer satisfaction as well as business results. The success of our policies and efforts are reflected in various forms such as a high staff engagement score.

We continue to invest in and provide our employees with development and career opportunities. We want to create a highly engaged and dedicated workforce and help our people achieve their full potential professionally and personally.



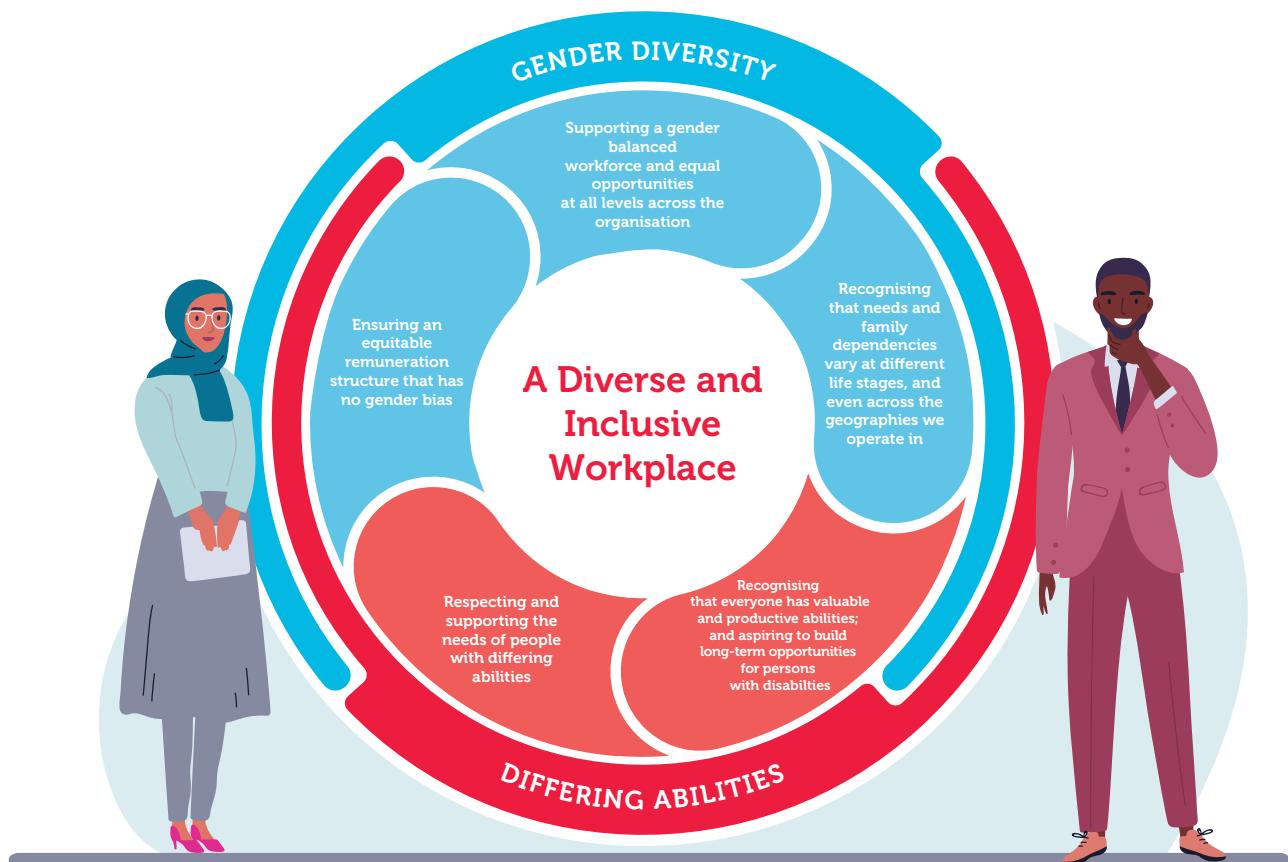


Figure 6: Singtel Group's Diversity and Inclusion Framework

CULTIVATING AN INCLUSIVE CULTURE THAT EMPOWERS

We are committed to upholding and protecting the human rights of all individuals through a culture of trust, respect and inclusion at Singtel. We do not discriminate based on their backgrounds, beliefs and abilities for reasons including gender, race, age, disabilities or irrelevant criminal record.

In line with our **Singtel Group Code of Conduct**, we are committed to providing employees with a work environment that is conducive, safe and free from discrimination and harassment. We also prohibit any form of retaliation against any person for making reports in good faith concerning allegations of discrimination, harassment, violation of the Code of Conduct or any other allegation of improper behaviour.

Grievance mechanisms are maintained to allow our stakeholders, including employees, to raise genuine concerns and report any adverse human rights impact that may happen within our operations and supply chains. Our **Whistleblower** hotline allows employees, contractors and others to report any grievance or concern through an independent channel. If we caused or contributed to human rights harm, we will ensure due diligence, proper review and prompt implementation of corrective and preventive measures.

Top on our agenda is to create a vibrant workforce, one with multi-faceted backgrounds and experiences, through our diversity and inclusion policies and practices.

A diverse workforce brings perspectives and creativity to the table that trigger new ideas, promote innovation and drive breakthrough performance.

We continue with our efforts to increase the representation of women in our senior leadership and technical roles. Diversity and Inclusion Councils in Singapore and Australia with leadership representation have been established to accelerate this agenda.

We commemorated International Women's Day 2021 with a 'Winning with Diversity' campaign, comprising related webinars and special features on our female colleagues who are role models and inspiration for many.



Chen Hong, Vice President of Corporate Systems and Test Management Office, Group IT

Commitment to Accessibility and Inclusion

In line with our commitment to be a disability-confident employer in Australia, we developed a renewed Optus Accessibility and Inclusion Action Plan 2020-2023 to guide us in building an inclusive and accessible workplace for our people, customers and the communities we serve.

We focus on four priority areas:

1. **Enabling Work** to foster an accessible, supportive and inclusive workplace with equal opportunities for everyone to participate
2. **Enabling Customer Experience** by ensuring our products, services and support are accessible to customers with disabilities
3. **Enabling Communities** by connecting people with disabilities to reach their potential through our digital technologies and innovative community programmes
4. **Enabling Innovations** that enable the development of assistive and enabling technologies that support independent living and employability



Everyone is welcome

The Optus Accessibility and Inclusion Action Plan
2020-2023

In Singapore, the Singtel-Singapore University of Technology and Design (SUTD) Women in Tech Scholarship was launched during the year to inspire female talents to pursue a science, technology, engineering and mathematics (STEM) career. This programme aims to groom future female leaders in ICT.

Our gender diversity efforts have been recognised by the 2021 Bloomberg Gender-Equality Index for the third consecutive year. We were also included in the Refinitiv Global Diversity & Inclusion Index 2020 for the second time. The 'Singapore 100 Women in Tech' 2020 list, which celebrated the contributions and achievements of women in the tech sector, included former Singtel Group CEO Chua Sock Koong and Wynthia Goh, Head of Next Digital, NCS.

In Singapore, Singtel played an active role in connecting with the broader ecosystem of partners to advance the disability employment agenda. We were one of eight companies that founded the SBNoD to advance equitable employment opportunities for persons with disabilities. As its co-chair, we continued to support SG Enable's mentorship and internship programmes for tertiary students with disabilities, as well as university career fairs and CV clinics. Against the backdrop of COVID-19, a series of webinars were convened to discuss best practices and strategies to support disability inclusion going forward.

Through The Valuable 500, a global movement that seeks to place disability on the global leadership agenda, Singtel was one of the first companies in Singapore to leverage our corporate assets, networks and resources to catalyse disability inclusion locally and globally.

In Australia, we partnered the Australian Network on Disability (AND) by connecting jobseekers with disabilities to Optus senior leaders through the PACE Mentoring programme. In 2020, we participated in the Stepping Into programme, AND's paid internship scheme that matches talented university students with disabilities with roles in leading businesses. Both programmes provide an opportunity for us to tap into future talent pools to drive better customer outcomes and innovation locally.

To support Australia's vulnerable communities including Indigenous Australians while enhancing our talent pipeline, we partnered CareerTrackers, a national non-profit organisation that supports the long-term career aspirations of Aboriginal and Torres Strait Islander university students. It links employers with students to prepare them for success at university and their chosen profession in their respective communities. We onboarded Indigenous Australian students on a 12-week paid internship during the year.

Launch of the Optus purpose

During the year, we developed a distinctive Optus culture, which has our purpose and vision at the core, to attract the best people to work for us and support our customer-centric strategy. We also defined eight critical people behaviours that define our success.

Examples of these behaviours include taking ownership and following up, and articulating implications before acting, where we remind our people to pause and reflect before engaging.

powered X OPTUS

People Performance Indicators

PEOPLE	SINGTEL			OPTUS			SINGTEL GROUP		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Total employees by gender									
Male	8,003	7,842	8,136	5,287	5,307	5,298	13,290	13,149	13,434
Female	4,388	4,303	4,453	2,400	2,356	2,459	6,788	6,659	6,912
Total employees	12,391	12,145	12,589	7,687	7,663	7,757	20,078	19,808	20,346
Total employees by employment contract and gender									
Regular employees (Male)	6,937	6,650	6,630	5,172	5,236	5,224	12,109	11,886	11,854
Contract employees (Male)	1,066	1,192	1,506	115	71	74	1,181	1,263	1,580
Regular employees (Female)	3,726	3,743	3,855	2,333	2,307	2,413	6,059	6,050	6,268
Contract employees (Female)	662	560	598	67	49	46	729	609	644
Total regular employees by employment type and gender									
Full time (Male)	7,995	6,643	8,112	4,740	4,675	4,612	12,735	11,318	12,724
Part time (Male)	8	7	24	547	632	686	555	639	710
Full time (Female)	4,377	3,734	4,432	1,893	1,779	1,788	6,270	5,513	6,220
Part time (Female)	11	9	21	507	577	671	518	586	692
Total employees by age group									
<30 years old	19%	20%	20%	20%	23%	24%	19%	21%	21%
30-49 years old	62%	61%	61%	60%	59%	59%	61%	60%	60%
≥ 50 years old	20%	19%	19%	20%	18%	17%	20%	19%	19%
Gender mix by employee category (% female)									
Operations and Support	43%	41%	41%	40%	39%	40%	42%	41%	40%
Professional	31%	32%	32%	30%	29%	29%	31%	30%	31%
Middle and Top Management	34%	34%	34%	22%	22%	22%	28%	28%	27%
- Middle Management	34%	34%	34%	23%	22%	22%	28%	28%	28%
- Top Management	34%	33%	31%	17%	10%	9%	28%	26%	24%
Salary ratio (female:male)¹									
Operations and Support	1 : 1	0.99 : 1	1 : 0.98	1 : 0.94	1 : 0.95	1 : 0.96	1 : 0.97	1 : 0.97	1 : 0.98
Professional	0.96 : 1	0.96 : 1	0.97 : 1	0.94 : 1	0.95 : 1	0.95 : 1	0.95 : 1	0.95 : 1	0.95 : 1
Middle Management	0.95 : 1	0.96 : 1	0.97 : 1	0.99 : 1	0.97 : 1	0.97 : 1	0.97 : 1	0.97 : 1	0.97 : 1
Bonus ratio (female:male)²									
Operations and Support	1 : 0.99	1 : 0.96	1 : 0.98	1 : 0.94	0.99 : 1	0.91 : 1	1 : 0.97	1 : 0.98	0.97 : 1
Professional	0.98 : 1	0.99 : 1	0.99 : 1	0.89 : 1	0.93 : 1	0.91 : 1	0.95 : 1	0.96 : 1	0.95 : 1
Middle Management	1 : 0.94	1 : 0.87	1 : 0.85	0.95 : 1	0.95 : 1	0.90 : 1	1 : 0.97	1 : 0.98	1 : 0.96
New employee hires	15.5%	14.1%	15.7%	15.2%	23.1%	18.6%	15.3%	17.6%	16.8%
New employee hires by age group									
<30 years old	6.4%	6.2%	7.5%	6.0%	11.5%	10.1%	6.2%	8.3%	8.5%
30-49 years old	7.9%	7.4%	7.6%	7.7%	10.2%	7.3%	7.8%	8.5%	7.5%
≥ 50 years old	1.2%	0.5%	0.6%	1.6%	1.4%	1.2%	1.3%	0.8%	0.8%
New employee hires by gender									
Male	5.0%	9.5%	10.7%	9.5%	15.5%	11.8%	10.1%	11.8%	11.2%
Female	10.5%	4.6%	5.0%	5.7%	7.6%	6.8%	5.2%	5.8%	5.6%

PEOPLE	SINGTEL			OPTUS			SINGTEL GROUP		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
Employee voluntary turnover	13.2%	15.7%	18.3%	12.5%	15.3%	17.0%	12.9%	15.5%	17.8%
Employee turnover by age group									
<30 years old									
Voluntary	3.8%	4.0%	5.4%	6.0%	8.1%	8.2%	4.6%	5.5%	6.5%
Involuntary	0.04%	0.6%	0.6%	0.8%	2.8%	3.3%	0.3%	1.4%	1.6%
30-49 years old									
Voluntary	7.8%	9.5%	10.6%	5.5%	6.3%	7.4%	6.9%	8.3%	9.3%
Involuntary	0.2%	0.9%	0.6%	2.0%	5.3%	4.2%	0.9%	2.6%	2.0%
≥ 50 years old									
Voluntary	1.6%	2.2%	2.3%	1.0%	0.9%	1.4%	1.4%	1.7%	2.0%
Involuntary	0.1%	0.6%	0.3%	0.9%	2.5%	9.2%	0.4%	1.3%	3.7%
Employee turnover by gender									
Male									
Voluntary	9.0%	10.6%	12.4%	8.0%	9.4%	10.6%	8.6%	10.1%	11.7%
Involuntary	0.2%	1.4%	0.9%	2.5%	6.9%	10.9%	1.1%	3.5%	4.7%
Female									
Voluntary	4.2%	5.1%	5.9%	4.5%	5.9%	6.4%	4.3%	5.4%	6.1%
Involuntary	0.1%	0.7%	0.6%	1.3%	3.7%	5.8%	0.6%	1.8%	2.6%
Total training investment (\$ million)	S\$11.8	S\$14.6	S\$15.6	A\$5.0	A\$7.8	A\$10.7	S\$16.8	S\$21.9	S\$26.1
Average training hours per employee	43.5	40.2	34.8	14.6	19.6	18.4	33.0	32.7	28.9
Average training hours by gender									
Male	48.3	44.2	37.0	13.7	19.1	17.8	34.8	34.3	29.5
Female	34.8	33.1	31.0	17.0	20.9	19.8	29.1	29.4	27.6
Average training hours by employee category									
Operations and Support	20.9	29.7	31.6	28.6	30.4	27.6	22.7	29.9	30.7
Professional	55.3	47.7	37.2	12.2	17.7	16.1	38.5	35.8	4.0
Middle Management and above	39.6	28.6	32.0	10.9	14.8	17.4	24.4	21.4	24.2
Employee health and safety³									
Total man hours worked (million)	27.6	-	-	13.1	-	-	40.7	-	-
Workplace injury incidence rate (per 1,000 employees)^{4,5}	0.8	0.8	1.5	2.6	2.3	2.2	1.5	1.4	1.8
Workplace injury frequency rate (per million hours worked)^{4,5}	0.4	0.4	0.7	1.5	1.4	1.3	0.7	0.7	0.9
Workplace injury frequency rate (Male) ^{4,5}	0.4	0.2	0.6	1.6	1.6	1.4	0.8	0.7	0.8
Workplace injury frequency rate (Female)	0.3	0.6	0.9	1.3	0.8	1.0	0.6	0.7	0.9
Workplace injury severity rate^{4,5}	10.0	7.9	12.9	19.0	8.9	16.7	12.9	8.2	14.1
Workplace injury severity rate (Male) ^{4,5}	13.0	4.6	10.9	23.7	11.9	22.7	16.6	7.1	14.8
Workplace injury severity rate (Female)	4.5	14.1	16.6	8.0	1.7	2.6	5.5	10.6	12.6
Absenteeism rate	0.014	0.022	0.021	0.013	0.017	0.017	0.014	0.020	0.019
Absenteeism rate (Male)	0.011	0.019	0.017	0.012	0.014	0.015	0.011	0.017	0.016
Absenteeism rate (Female)	0.019	0.029	0.028	0.017	0.024	0.021	0.019	0.027	0.026
Total occupational disease cases	0	-	-	0	0	-	0	-	-
Total occupational disease cases (Male)	0	-	-	0	0	-	0	-	-
Total occupational disease cases (Female)	0	-	-	0	0	-	0	-	-
High consequence injury rate (per million hours worked)	0.04	-	-	0	-	-	0.02	-	-
Fatalities	0	0	0	0	0	0	0	0	0

1. Based on average monthly salary of regular employees.

2. Based on average annual bonus of regular employees.

3. Workplace safety and health metrics are based on the International Labour Organization (ILO) definitions, subject to country definition of lost work shifts e.g. Optus excludes weekends from medical leave when calculating these rates.

4. Optus FY2020 figures have been adjusted to include a case in Australia which happened during that year but recognised by the insurance company only in FY2021.

5. Based on ILO's definition this excluded time lost as a result of an Optus employee's permanent incapacity for work. There was one claim in February 2020 due to a brain aneurysm. This is an injury not caused by an incident at work but rather it occurred while the employee was at work. The employee is not expected to be able to return to work.

Community Impact

The Singtel Group is committed to driving positive and sustainable change for our communities, particularly the vulnerable and underserved groups, in the markets where we operate.



The Singtel Group strongly supports the advancement of the communities we operate in. We are guided by our strategic community investment framework, which is shaped by our regular materiality review and close engagement with the social service sector.

Digital Enablement is at the core of our community impact strategy as we recognise that our ICT capability and competence, product technology and innovation can make a positive and lasting impact. It will also be the main driver to address key material topics like Online Safety as well as Education and Employability identified by our latest materiality review and stakeholder engagement exercise.

Our focus on Equity and Inclusion demonstrates the company's commitment to support the vulnerable, persons with disabilities and disadvantaged families and communities.

Together with our partners, we develop and implement programmes and staff engagement initiatives that leverage the company's collective resources of digital services, corporate competence and staff expertise to create meaningful impact in the community.

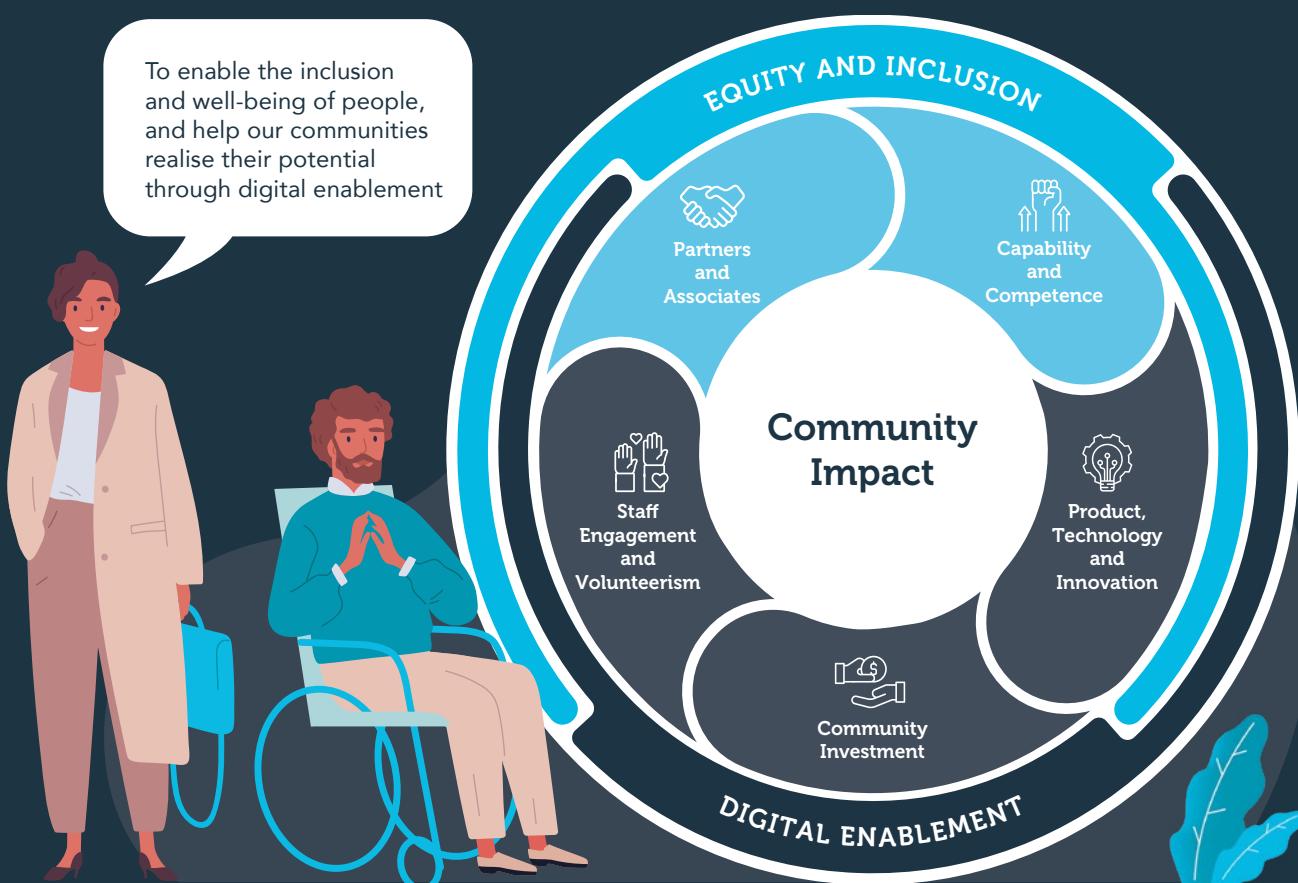


Figure 1: Singtel Group's Strategic Community Investment Framework

Community Impact	Target Segment	Description	Key Programmes		2025 Target
			Singapore	Australia	
Digital Enablement	Vulnerable seniors and disadvantaged young people	Bridge digital divide by providing equitable access to our connectivity solutions for the vulnerable population	• Singtel Digital Silvers • Mobile Access Scheme	• Donate your Data	One million digitally enabled persons and SMEs (between 2015 and 2025)
	Small and medium sized enterprises, NGOs and Social Service Agencies	Leverage digital technology and innovation to improve growth opportunities for SMEs and quality of life for the community	• SME Let's Get Digital • Singtel Future Makers	• Optus Future Makers	
	Children, youth, parents and caregivers	Ensure the safety and well-being of children and youth, and through educating their parents to help them participate meaningfully in a digital environment	• Help123 • Partnership with DQ Institute	• Optus Digital Thumbprint	
Equity and Inclusion	Persons with disabilities, the disadvantaged and Indigenous people	Harness our corporate assets and resources to include vulnerable segments of society and empower them to lead independent lives	• Singtel Touching Lives Fund • Race Against Cancer	• Partnership with ABCN and KARI Foundation	

“We shouldn’t take a wait and see approach. My greatest hope is for everyone – the government sector, enterprises, NGOs and the community – to lean in and enable digital access and inclusion. And if we all step up together, we will get there faster.”

– Yuen Kuan Moon, Singtel Group CEO, at the Smart Nation & U 2021 panel dialogue on ‘The COVID-19 digital tsunami – leaving no one behind’ on 12 March 2021



Photo credit: MCI and SNDGO

Figure 2: Singtel Group’s Community Investment *
(\$ million)

● Singtel ● Optus ● Singtel Group



* Our community investment, which includes direct financial support, in-kind charitable sponsorship and staff volunteering hours, has been verified by the Business for Societal Impact (B4SI)

DIGITAL ENABLEMENT

Despite the high digital penetration in Singapore and Australia, a small vulnerable segment of society still lacks digital access due to various socio-economic reasons. COVID-19 has made these gaps more pronounced. Vulnerable seniors and underprivileged students who were already struggling to stay connected faced even more challenges with social distancing measures during the pandemic.

Digital enablement is at the core of our community strategy. The Singtel Group, as a leading communications technology company, is uniquely placed to leverage our digital services, resources and competence to help communities reap the full benefits of digitisation, especially vulnerable groups who may be left behind. Community bonds are also strengthened through increased connectivity.

The Singtel Group works closely with government agencies and charity partners to bridge the digital divide. We tap on our strengths in ICT to support the vulnerable and underserved population with digital access and skills to improve their daily lives and livelihood. This is also part of our support for Singapore's aim to become a Smart Nation.

We recognise the unintended consequences of a digital lifestyle and focus on safe and responsible use of digital media and devices. We promote cyber wellness and online safety among vulnerable groups, especially children and youth.

Empowering seniors to go digital

In Singapore, COVID-19 limited seniors' social interactions due to safe distancing measures. To ease the social isolation, Singtel launched Singtel Digital Silvers, a programme which enables seniors to stay digitally connected. Our staff volunteers guide the seniors through one-on-one tutorials to build digital literacy and confidence using smartphones and mobile apps. The seniors also receive practical tips on scam calls and how to stay safe in the online world.

As part of the initiative, we will invest more than S\$1 million to transform Senior Activity Centres (SACs) into digital hubs that promote active ageing. The centres will be upgraded with our high-speed fibre connection and Singtel TV ethnic content for the seniors to stay connected and entertained.

Many seniors prefer face-to-face interactions. Hence, besides the weekly one-on-one sessions conducted by our staff volunteers at SACs, we hold weekly silver workshops at all our Singtel Shops before opening hours. These sessions strictly adhere to the national safe distancing measures and capacity guidelines. During the year, we empowered 500 seniors with basic digital knowledge and smartphone features like camera and voice messaging. Under the guidance of our dedicated staff volunteers, these seniors now have more confidence using mobile phones and apps.

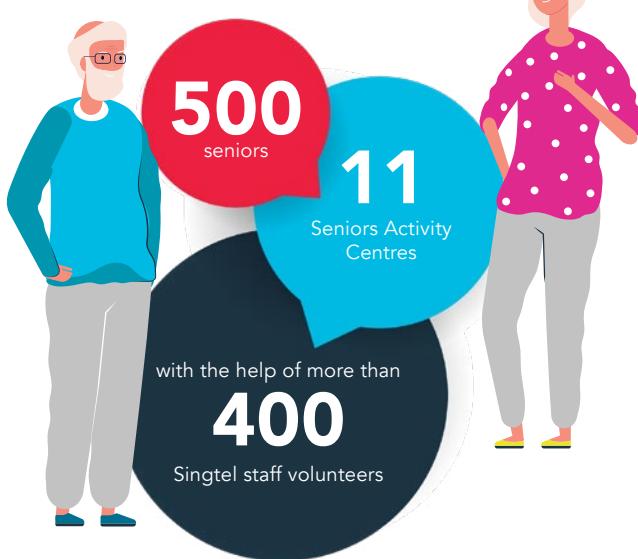


Singtel staff volunteers guiding seniors on using digital devices and services at weekly hands-on sessions



Singtel staff conducting weekly silver workshops for seniors at our flagship Singtel Shop

Figure 3: Singtel Digital Silvers



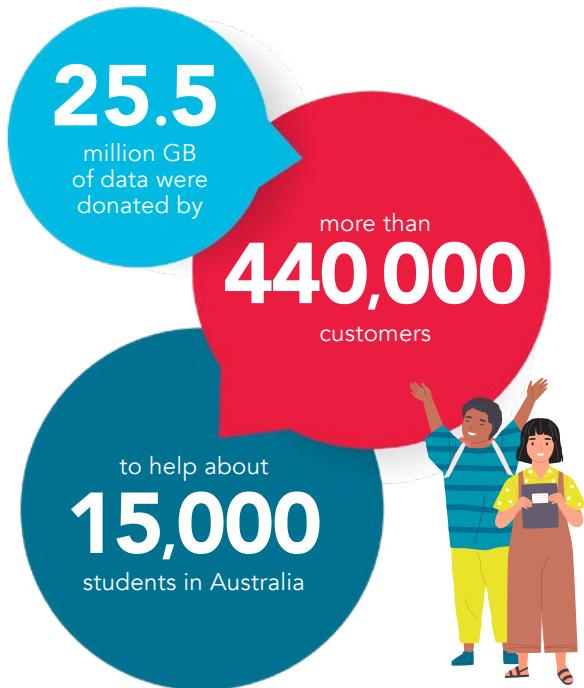
* September 2020 - 31 March 2021

Helping disadvantaged youth stay connected

In Australia, we launched a digital inclusion initiative Donate Your Data in late-2019 to help bridge the digital divide for the 1.1 million young Australians living in poverty. Our mobile customers can donate their data to young Australians who need it most. The data donated will be pooled and shared with young people supported by our charity partners such as ABCN, KARI Foundation and The Smith Family. To date, we have seen 25.5 million GB of data donated by more than 440,000 customers which helped about 15,000 students in Australia.

During the year, we expanded the programme to telehealth, partnering Sydney Children's Hospitals Foundation. We support the hospital's network telehealth model of care by ensuring that young Australians receive quality care remotely through mobile data access. The hospital saw over 1,500% increase in the use of telehealth and 80% of consultations in certain departments were delivered virtually.

Figure 4: Donate Your Data



Helping SMEs go digital

In September 2020, we launched Let's Get Digital, a programme that guides SMEs in Singapore on their digitisation journey, offering ICT service consultation and support at no charge. SMEs can seek advice from our digital specialists on matters such as safeguarding data and strengthening security controls, digital sales and marketing, and simplifying and digitising processes to increase productivity. These solutions are selected and implemented based on the SMEs' growth stages and needs. Find out more about our range of solutions [here](#).

SMEs also enjoy complimentary access to other Singtel resources, such as monthly webinars, digital clinics and advice on the various government grant schemes for digital solutions.



"When we first expanded our business online, it was quite daunting to handle the influx of orders and enquiries from our website, social media channels, and marketplace portals. Through Singtel's Let's Get Digital, we received dedicated guidance on onboarding and getting the most out of solutions that we were unfamiliar with. This includes Singtel's Shoptiq platform, which helped us become truly omnichannel through the integration of the channels we use. It provides analytics on our customers' interaction and purchase history, and enables personalised engagement campaigns, which increase conversion rates."

– Mr Clarence Yap, Owner of CMJJ Enterprise, a wholesale supplier of consumer goods like snacks and beverages

Encouraging hawker centres to embrace digital payments

Digital payment systems can help hawker centre stallholders improve their productivity. Not only does it reduce cash handling, it also eliminates physical contact in today's COVID-19 environment. However, adoption has been slow.

Through encouraging the use of Singtel Dash, our mobile wallet, we wanted to inculcate the habit of making digital payments at hawker centres with a Tingkat giveaway by rewarding diners who made multiple Dash transactions when buying meals. The use of Tingkat, a Malay word for multi-layered food carrier, also protects the environment by replacing disposable containers for meal takeaways.



Scaling social innovation

Launched in 2016, Singtel Group Future Makers is a capacity building programme for social impact start-ups and enterprises. We support promising social innovation solutions that create positive social and healthcare impact for the vulnerable in society.

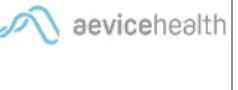
Our ecosystem of partners comprises the non-profit sector, social enterprises, corporates and venture capital companies. Their engagement and support come in many forms such as programme partners, mentors and speakers. Our in-house subject matter experts from various business units such as digital marketing, HR, legal and strategy, are involved in roles like mentors and coaches as part of our skilled volunteering effort.

In Singapore, the theme of Singtel Future Makers 2020 programme was 'shared value'. We supported five social impact start-ups with a S\$150,000 grant pool. They worked on a shared value proof of concept to create joint opportunities for themselves, Singtel's business units, the community and social service agencies.

Against the backdrop of COVID-19, we also awarded two Singtel Future Makers alumni with a Special Pandemic Support Grant to support their digital solutions that tackle social and community challenges posed by the pandemic. Read our Future Makers Impact Report 2019 and 2020 [here](#).

In Australia, Optus Future Makers supported five social impact start-ups with a A\$200,000 grant pool to further their innovations using technology to tackle challenging social issues. The start-ups were supported by dedicated Optus coaches and received exclusive training in areas such as product and tech development, marketing strategies, pitch training and making strong social impact. Find out more about Optus Future Makers 2020 [here](#).

Figure 5: Singtel Future Makers start-ups with digital solutions to support the needs of seniors and their caregivers at different stages

Desired Outcomes	Social Support Required	Potential of Singtel Future Makers Start-Up Solutions		
 Keep active to reduce frailty and risk of care recipients	 Meaningful social engagement for care recipients	 Timeliss (2018): Digital legacy planning	 Tictag (2020): AI data annotation game to engage seniors	 GenConnects (2020): Digital rehabilitative games that enhance the cognitive abilities for people with dementia
 Early intervention to manage physical and mental decline	 First responder and locale-based support to meet needs	 XCLR8 (2018): Remote physical rehabilitation through sensors and wearables	 aevice Health (2018): Wearable technology that uses AI to help diagnose, manage and predict chronic respiratory diseases	 SENZE HUB (2020): Wearables to measure vital signs of seniors and early detection for emergencies
 Reduce caregiver burden and stress	 Peer support and empower caregivers through technology	 Pillpresso (2017): IoT device to improve patient's medicine adherence	 Enabler Interactive (2016): Digital simulation training for hospital staff and caregivers	 Project We Forgot (2017): Community of support for caregivers of people with dementia



Singtel Future Makers 2020 start-ups attending a virtual engagement session with Singtel stakeholders



Optus Future Makers 2020 start-ups hoping to make a social impact with Optus CEO Kelly Bayer Rosmarin (fourth from left)

Online safety and well-being

Digital devices have benefited society in the way we learn, work, play and interact. However, the same technologies have also given rise to unintended consequences, especially for children and youth who are more digitally connected than ever. They are exposed to risks such as device and gaming addiction, inappropriate online content and cyber bullying.

This situation could worsen with COVID-19. With safe distancing measures and digital learning, the increase in unregulated screen time and content access could exacerbate the online risks for the younger ones. Since FY2016, the Singtel Group Digital Thumbprint programme has equipped more than 600,000 students, educators and parents with skills and knowledge to stay safe online. Our programme has also evolved to meet the changing needs and landscapes in our markets.

We are heartened that the Singapore government has taken on a greater role in implementing cyber wellness curriculum for students, including special education schools. In FY2015, we created a cyber wellness toolkit for teachers to impart critical knowledge to children with special needs. In consultation with our strategic community partners, we have pivoted our programme to support parents and caregivers who are responsible for monitoring online risks and creating a healthy environment to support their children's digital intelligence, as well as social and emotional growth.

Helping families manage digital risks

In collaboration with TOUCH, we recently incorporated the resources provided by our notAnoobie app for parents into the newly revamped **Help123**, an integrated cyber wellness and digital parenting online platform. Help123, launched in July 2017, was co-funded by Singtel in partnership with the National Council of Social

Service. The success of Help123 has allowed it to continue and be operated under our partnership with TOUCH since 2020. Today, it meets the growing needs of parents and educators to manage cyber wellness issues faced by their young ones. The full suite of services includes a one-stop hotline (1800 6123 123), email, knowledge resources and digital parenting webinars. The revamped Help123 has seen an increase in calls, emails and website traffic. It has also equipped 5,000 parents and children through webinars during the pandemic. Almost every participant reported gaining useful knowledge from these sessions.

We supported the #DQEeveryChild Emergency Fund as part of our ongoing strategic collaboration with DQ Institute, at the onset of COVID-19. With the fund, 67,000 children worldwide were given a digital readiness kit to equip them with digital citizenship skills that required minimal support from parents and teachers. With school closure and increased screen time for children, many parents faced difficulties working from home while supervising their children's online activities. To meet parents' needs, #DQEeveryChild provided Digital Parenting workshops in Singapore that reached about 1,000 parents.

In September 2020, the IEEE Standards Association (IEEE SA) approved the DQ framework as the world's first global standards for digital skills and literacy. Singtel, together with SkillsFuture Singapore and other partners, supported DQ Institute throughout the IEEE SA process. The DQ framework sets a common language, structure and taxonomy that can be benchmarked, referenced and adopted across nations and sectors worldwide. Any interested party in any country can now use the DQ standards to enhance the level of digital literacy and skills of people to bridge the local digital divide.

Educating young people in Australia

As a key player in Australia's digital community, we are committed to helping young people and families be safe, responsible and positive online. Since 2013, we have delivered programmes and supported more than 390,000 primary and secondary school students across Australia through our Digital Thumbprint programme, which encourages positive behavioural change.

During the pandemic, we adopted a hybrid learning model where our facilitators delivered the programme face-to-face in classrooms or via Zoom.



In November 2020, we launched our new teacher-led digital interactive workshops, which cover key topics such as cyber bullying, cyber security and managing screen time. Students can complete the workshops at school or remotely. About 60,000 primary and secondary students, including regional communities, have since completed our workshops across Australia.



Top telco in Southeast Asia in the Global Child Forum benchmarking study

Singtel was ranked the top telco in the Global Child Forum benchmarking study, 'The State of Children's Rights and the Corporate Sector in Southeast Asia 2020'. The study analysed 232 of the largest companies by 2018 revenue and covering eight sectors and six countries in Southeast Asia, on how they implemented children's rights.

We were recognised for our efforts towards the disadvantaged and vulnerable, including children and youth, through digital inclusion and increased access to products and services, while reducing related risks such as cyber bullying as well as social media and gaming addiction.

Supporting our customers' digital well-being

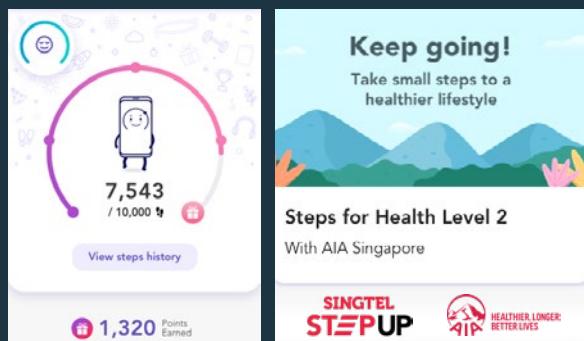
GOMO by Singtel is a no-contract SIM only plan. GOMO's #DataForGood, launched in March 2021, is a movement rallying GOMO customers to make the online space a better one and encouraging better mental and digital well-being for all in Singapore. For one day each month, GOMO gives out one extra GB of data to customers to do more good. This could include hosting a podcast to spread cheer or rallying support online to help those in need. GOMO customers are also encouraged to share

stories and suggestions on how to do good online through GOMO social media.

In Australia, we recently announced a game-changing Australian-first innovation, Optus Pause, that allows our customers to pause notifications on their devices through My Optus app and take time off from being 'plugged in'. This empowers our customers with the freedom to balance their connectivity with time for themselves, families, friends or colleagues.

Promoting the health and well-being of customers with AIA

In Singapore, we partnered AIA for Singtel StepUp, a wellness platform that allows our postpaid customers to earn local mobile data with every step they take. It also offers lifestyle rewards from AIA and other partners, as well as content on wellness, fitness and nutrition, to encourage Singaporeans to stay active and healthy. Both companies will also co-create innovative insurance products relevant to customers' increasingly digital lifestyles.



In Australia, we partnered AIA to inspire consumer wellness and encourage people to live more active and healthier lifestyles. Both our customers will have access to exclusive offers and be motivated to achieve their health and fitness goals via the AIA Vitality programme, use of wearable devices and the connectivity we provide.

EQUITY AND INCLUSION

The Singtel Group is dedicated to advancing vulnerable segments of society, including persons with disabilities, disadvantaged youths and Indigenous Australians so that they are empowered to lead independent lives.

We received the Pinnacle Award, the highest accolade at the Community Chest Awards 2020, in recognition of our support for the sustainable progress, development and inclusion of vulnerable groups in Singapore. We were also presented with the Volunteer Partner, Charity Platinum and Community Spirit Platinum awards for our strong corporate philanthropy and volunteerism culture and community efforts.

Inclusion of vulnerable groups

Singtel Touching Lives Fund (STLF) is our flagship corporate philanthropy programme supporting the education of children and youth with special needs in Singapore. Our six beneficiary schools are: APSN Chaoyang School, APSN Tanglin School, APSN Delta Senior School, Cerebral Palsy Alliance Singapore School, Eden School and MINDS Lee Kong Chian Gardens School. We underwrite all fundraising costs so that every dollar raised goes to the beneficiary schools. STLF has raised S\$48 million since 2002.

Due to COVID-19, we were unable to organise our annual Singtel Carnival in late-2020, Singapore's largest carnival for children with special needs. Instead, we produced a customised multi-purpose pouch and reusable mask for all 6,500 students in the 19 special education schools as a Children's Day gift. The pouch and mask designs were adapted from the artwork of Tong Tong, a student from MINDS Lee Kong Chian Gardens School, an STLF beneficiary school.



Singtel Joins The Valuable 500

Singtel demonstrated our commitment towards disability inclusion by being one of the first companies in Singapore to be part of The Valuable 500, a global movement that seeks to place disability on the global leadership agenda. We will continue to work with like-minded businesses and leverage our corporate assets, networks and resources to catalyse disability inclusion locally and globally.

Advancing employment of the disadvantaged population

We continue to play an active role in connecting the broader ecosystem of partners to advance the disability employment agenda. Together with like-minded companies, Singtel was one of the eight companies that founded SBNoD to advance equitable employment opportunities for persons with disabilities. As the co-chair of SBNoD, we support SG Enable's mentorship and internship programmes for tertiary students with disabilities, as well as university career fairs and CV clinics. Amid the pandemic, we convened a series of online webinars to discuss best practices and strategies on how to support disability inclusion in the new normal.

Through our annual Pathways 2 Employment programme in Australia, we support disadvantaged youths by guiding them on job seeking and interviewing skills so they are more employable. This year, we coached 50 students from disadvantaged backgrounds. The programme also benefits our staff mentors who improved their coaching and leadership skills.

Engaging our people

Keeping our people actively engaged in the community is a key driver of our staff engagement and community impact strategy. We recognise our employees possess the skills, talents and resources for digital enablement of vulnerable segments in the community. It also builds character and enables them to develop soft skills such as empathy.

Our annual staff Your Voice survey 2020 results showed a 10% point improvement in the ESG category, with very strong correlation to the overall staff engagement score. Top reasons cited by staff included engagement by leaders, a supportive work environment, and what the company does in the areas of environment, social, diversity and inclusion.

We encourage our people to volunteer individually or as a team by giving paid volunteer leave, and encouraging business units to adopt VolunTeaming, our concept of teambuilding with a volunteering element. With many of our mass staff volunteering programmes put on hold for most of 2020, we pivoted and rallied over 600 colleagues to contribute their time and expertise to support the vulnerable population affected by social distancing, mainly through our Singtel Digital Silvers programme.

To keep our community safe and healthy, we supported #BYOBclean in early 2020 and 2021, an initiative by Temasek Foundation to distribute free hand sanitisers to all households in Singapore. More than 120 Singtel staff volunteers supported this meaningful initiative.

The impact of the pandemic has been particularly acute for vulnerable and low-income families. Through the SG Care Community Network Outreach organised by the Ministry of Culture, Community and Youth, our staff volunteers were involved in reaching out to these vulnerable persons in Singapore. They made phone calls to identified households and engaged residents following a call script. This included checking how they were coping and sharing where they could seek help if needed.

In Australia, we continue to work closely with the Australian Business and Community Network (ABCN), of which we are a founding member, to mentor vulnerable youths in high-needs schools. During the year, 124 Optus employees filled mentor roles and continued to give back through digital mentoring.

In March 2021, we extended our Optus Agile programme to ten of our charity partners including ABCN and KARI Foundation. It involved a three-day workshop to upskill their leadership teams. Our Agile coaches and Enterprise Agile Transformation Lead delivered topics such as planning, prioritisation, road mapping and creating the right mindset. 24 participants from our charity partners walked away empowered with useful tools to improve their operations and ways of working.



To keep our community safe and healthy, we supported #BYOBclean in early 2020 and 2021, an initiative by Temasek Foundation to distribute free hand sanitisers to all households in Singapore. More than 120 Singtel staff volunteers supported this meaningful initiative



Mark Reeves, a Senior Manager at Optus Networks, stayed in contact with his mentee every two to three weeks through email, phone or video call to guide him in setting career goals

Figure 6: Staff Volunteering Hours

(hours)

	Singtel Group	Singtel	Optus
FY2021	10,653	2,439	8,214
FY2020	28,226	16,739	11,487

Race Against Cancer

The Singtel-Singapore Cancer Society Race Against Cancer 2020 in September aimed to raise funds for cancer patients and their families. As the title sponsor for the 12th year running, Singtel donated S\$250,000 to support the Society's Help the Children and Youth Programme that was set up to improve the lives of children affected by cancer.

We also mobilised our colleagues including the Singtel Management Committee which formed a running team to participate in the race held virtually for the first time. Together, the Singtel runners raised over S\$135,000 and covered 6,810 km.



Sustainable Value Creation

The Singtel Group is committed to being a responsible and innovative leader in the markets where we operate. Underpinning our strategy is embracing responsible business practices across our operations and supply chain and delivering an unparalleled customer experience.

We can help to address the pressing needs of the environment and society as infocomm technology continues to influence the way people connect, work and play. We recognise the rising stakeholder expectations of us as the market leader to drive greater environmental and societal impact.

RESPONSIBLE BUSINESS PRACTICES

We serve more than 14 million consumer and enterprise customers to meet their daily communication and connectivity needs. We strive to preserve stakeholder trust and confidence in us. We also aim to mitigate the unintended negative impact of our products and services for our stakeholders, in particular these two areas identified as material topics for the Singtel Group: Data Privacy and Cyber Security as well as Ethical and Fair Business Practices.

Data privacy and cyber security

The Singtel Group upholds the highest standards of customer data privacy and cyber security. We advocate greater transparency on how personal data is used and safeguard our customer data in strict adherence to data protection laws, mainly PDPA in Singapore and the Privacy Act and Telecommunications Act in Australia.

Singtel's Data Protection Policy and **Optus' Privacy Policy** help our customers understand how we collect, use, share and protect their personal data.

We conduct regular vulnerability assessments and penetration tests on our corporate information systems and network infrastructure to identify, reduce and rectify security weaknesses.



Figure 1: Singtel Group's Sustainable Value Creation Framework

This is guided by our Cyber Risk Management Framework to help us manage current and emerging threats and implement risk treatment measures to protect our system data and customer information. We constantly monitor and review risks to ensure security adequacy and effectiveness in today's rapidly evolving cyber risk landscape.

We continue to educate our staff and improve processes to reduce the recurrence of data breaches. Every year, all employees must complete a mandatory online privacy training which covers local laws and staff's responsibility to safeguard data. They also attend data privacy and

security awareness training to strengthen cyber security awareness and learn from best practices. Phishing email simulation exercise and training are conducted throughout the year to improve staff knowledge on phishing email identification. We periodically publish security tips, such as malware and ransomware, and mobile device security to raise employees' awareness and vigilance level. Targeted training is also conducted for our customer service teams and offshore contact centres. These are supplemented by regular reminders by the leadership team on the importance of our code of conduct, data privacy and protection as well as anti-bribery and corruption.

Figure 1: Managing Customer Data Privacy and Protection

GOVERNANCE MANAGEMENT

- Appointed Group Chief Information Officer as our Data Protection Officer to provide management strategic oversight and direction across the Group, reporting directly to the Board Risk Committee on risks and solutions.
- Engaged employees in shared learnings through case studies to emphasise the importance of data privacy in day-to-day activities.
- Established nine security operation centres worldwide to support and advise our global enterprise customers on protecting their own and customer data.

STAFF EDUCATION AND TRAINING

- Educate employees through annual mandatory online training and refresher programmes on data privacy and information security.
- Conduct regular phishing email simulation exercise and training to improve staff awareness and identification of phishing emails.
- Train onshore and offshore customer service teams.
- Share security tips, such as those on malware and ransomware and mobile device security through email and Espresso, our intranet.

BUSINESS RISK ASSESSMENTS

- Carry out data protection impact assessments to identify potential data risks and develop mitigation measures.
- Conduct regular compliance checks on staff and vendors externally to ensure that all business processes adhere to the relevant data privacy and protection laws.

CUSTOMER EMPOWERMENT

- Empower customers with the choice to opt out of mailing lists to receive promotional messages or marketing calls. In Singapore, we comply with the Spam Control Act where any promotional messages sent by us must be clearly labelled as advertisements. In Australia, we meet our obligations under the Privacy Act and Privacy Provisions of the Telecommunications Act, the Spam Act and the Do Not Call Register.

In FY2021, we recorded 21 privacy incidents in Singapore, five of which were referred to us by the Personal Data Protection Commission (PDPC). These incidents were mainly due to IT, process or human errors, resulting in personal data being disclosed to the wrong party. We terminated the service of two employees for abusing their access to customer information. One case related to a call centre employee who retrieved unauthorised customer information for a moneylender who was harassing his family. We promptly alerted the police and terminated his employment, which was in line with our zero tolerance policy against any fraud, unethical or dishonest action. The court jailed and fined him in December last year after he pleaded guilty.

During the year, PDPC did not impose fines or non-monetary sanctions against Singtel.

In February 2021, we reported a data breach of information comprising personal information of about 130,000 customers, enterprises and former employees on a third-party file sharing system from Accellion. Our vendor notified us of this incident which was part of a wider global attack against their systems, whose users included banks, universities and government agencies. We immediately notified affected stakeholders, created

a [website](#) with relevant information and FAQs, and appointed a global data and information service provider to provide identity monitoring services for them. We also worked closely with cyber security experts and relevant authorities including the Cyber Security Agency of Singapore on this matter.

Our core operations remained unaffected as this isolated incident involved a standalone third-party system. Information security remains our highest priority and we are conducting a thorough review of our systems and processes to strengthen them.

In Australia, we track customer privacy complaints that are referred to us from customers, employees, other individuals or regulatory bodies. In FY2021, there were 114 cases categorised as privacy incidents. 11 cases were referred by the Telecommunications Industry Ombudsman (TIO) and one case from the Office of the Australian Information Commissioner (OAIC). These incidents, such as the unauthorised disclosure of personal information, were mainly caused by staff error and negligence, and mostly affected individuals. We did not report any Notifiable Data Breaches during this period as the notification threshold to notify OAIC was not met for any of these complaints.

Protecting Customer from Scam Calls

In late December 2020, we launched a scam awareness and educational campaign to educate Singaporeans on how to recognise and protect themselves from scams. Titled 'Jaga your data!', it comprised three light-hearted short films, each playing out a typical telco-related ruse by fraudsters, infused with local humour. 'Jaga' is a Malay word widely used in Singapore which means take care or protect.

The campaign builds on our ongoing efforts to mitigate scams and safeguard the interests of our customers through regular scam advisory and fraud analytics to block scam calls. In April 2020, we worked with the government to add a '+' prefix to international incoming calls spoofed to look like local numbers. Our customers can therefore identify these scam calls easily and remain vigilant.

Learn more about the scammers' modus operandi at the Singtel YouTube channel: [This is tech support calling.](#)

In Australia, we blocked more than 15 million scam calls to our customers in 2020. We expect the number to increase with recently introduced The Reducing Scam Calls Code supported by the Australian Communications and Media Authority (ACMA). The new formal process requires joint effort and information exchange among the Australian telcos to monitor, detect, trace and block scam calls.



Optus and Mastercard bring digital identity to the Australian telecommunications industry

In November 2020, Optus and Mastercard launched ID, a Mastercard digital identity service, to strengthen customer identity verification and authentication process while retaining a best-in-class, digital-first customer experience. The service gives customers full control over what information is shared and can only be accessed once the users verify their identity using the biometric capabilities built into their mobile devices, thus minimising SIM-related fraud such as SIM swapping.



Trustwave Launches Powerful Cyber Security Collaboration Platform

During the year, Trustwave expanded the reach of our unique cyber security collaboration platform, which leverages sourced knowledge from a global community of organisations to help others solve pressing cyber security challenges. With Trustwave Security Colony™, enterprises can gain access to a wealth of resources such as best practices, risk assessment tools and guidance from security experts to bolster their security posture.

Ethical and fair business practices

Ethical and fair business practices are critical to building trust and loyalty with our customers. They are also manifested in two of our Singtel Group's core values – Integrity and Personal Excellence – which we expect employees to embrace and demonstrate in every aspect of their work.

As a responsible company, we incorporate these values into our processes and decision making to ensure that everyone behaves responsibly and ethically. In this report, we focus on fair marketing communications, anti-bribery and corruption, and tax transparency.

Fair marketing communications

During the year, the Advertising Standards Authority of Singapore (ASAS) raised two cases from customers who felt that our advertised promotions were not clear or could be misleading. We amended the text of our mobile advertisement in question for clarity. The other case involved our fibre broadband service and ASAS reminded us that pertinent conditions should be stated on our ads before consumers access the online sign-up page, which spelt out all the conditions.

In Australia, no fines were imposed on Optus.

Anti-bribery and corruption

The Singtel Group adopts a zero tolerance policy towards fraud, corruption and unethical actions of any form. We manage our exposure to corruption risks through good corporate governance and apply robust internal controls. Our management of fraud risk is supported by various policies and programmes. For example, our **Anti-Bribery and Corruption Policy**, together with our Codes of Conduct in place at all Group entities, mandates that Singtel Board members, management, employees and third parties

who represent us, such as suppliers, contractors and business partners, observe our approach to bribery and corruption. Our Whistleblower Programme, comprising an independent whistleblower hotline operated by external service providers in Singapore and Australia and supported by our Fraud Investigation Policy, strengthens our internal control environment. Please refer to our **website** for more information on Corporate Governance.

Every year, all employees undergo mandatory online refresher courses on Code of Conduct, Fraud Awareness and Anti-Bribery and Corruption Policy. We review these courses periodically to ensure that the content remains up to date.

If an allegation of corrupt conduct is received, the Internal Audit department or teams led by subject matter experts will conduct an investigation. If an alleged incident involving corrupt or fraudulent conduct by an employee is substantiated, we will terminate the employee's employment and report the matter to the relevant law enforcement authority.

During the year, we received 121 cases via our whistleblower channels regarding various allegations, including employee misconduct. We also received 60 cases of allegations of fraud and corruption by Singtel Group employees or representatives via other channels, such as compliance checks and investigations by law enforcement agencies. In total, 74 cases were found to be substantiated, while another 74 were not. 33 cases remained under investigation as at 31 March 2021. In addition, we closed 33 matters received in the prior year that were still under investigation as at 31 March 2020, of which 21 cases were substantiated. Six of the 95 substantiated cases took place outside Singapore and Australia.

Table 1: Breakdown of nature of substantiated cases in FY2021

Types/Nature of cases	SINGTEL	OPTUS	SINGTEL GROUP
1. Breach of policy including IT security policy	8	33	41
2. Employee misconduct, undeclared conflict of interest and inappropriate behaviour	15	22	37
3. Employee fraud	2	11	13
4. Identity theft	-	3	3
5. Corruption	1	-	1

Table 2: Number of cases received in FY2021

	SINGTEL		OPTUS		SINGTEL GROUP	
	Whistleblower channels (all complaints)	Other channels (fraud/corruption-related)	Whistleblower channels (all complaints)	Other channels (fraud/corruption-related)	Whistleblower channels (all complaints)	Other channels (fraud/corruption-related)
Received	34	9	87	51	121	60
Substantiated	11	8	36	19	47	27
Not substantiated	18	-	40	16	58	16
Under investigation as at 31 March 2021	5	1	11	16	16	17

	SINGTEL	OPTUS	SINGTEL GROUP	Actions taken for corruption cases during the year:	SINGTEL	OPTUS	SINGTEL GROUP
Number of cases under investigation as at 31 March 2020	13	20	33	Number of cases where employees were dismissed or disciplined	1*	-	1
Substantiated	7	14	21	Number of cases where contracts with business partners were terminated or not renewed	1*	-	1
Not substantiated	6	6	12				

* Same case resulting in employee dismissal and vendor termination

Responsible Tax Management

We recognise that our tax contributions are important to public finances and the social programmes they fund, and the Singtel Group is committed to complying with applicable tax laws of the jurisdictions where we operate.

The Board is responsible for risk governance and assisted by the Audit Committee in the oversight of tax matters. As part of our continuous effort and commitment towards sound tax governance, we established a Tax Risk Management Framework during the year that formalised our tax risk management practices. The framework sets a coordinated approach in our identification, management and mitigation of tax risks and promotes responsible tax management. The Group Chief Financial Officer, under

the appointment by the Audit Committee and supported by Vice President of Group Tax, supervises the framework practices and effectiveness. For more information, please refer to our **Responsible Tax Management Statement**.

Optus is categorised as a Key Taxpayer for income tax by the Australian Tax Office and is subject to its annual Pre-lodgement Compliance Review. Optus is a signatory to the Board of Taxation's voluntary tax transparency code, publishing Tax Transparency Reports since 2018. The latest **Optus 2020 Tax Transparency Report** outlines tax policy, strategy and governance for our Australian operations. It also highlights our Australian contribution to corporate income tax, effective tax rate and reconciliations of accounting profit to income tax expense and tax payable.

CUSTOMER EXPERIENCE

We are committed to anticipating and meeting the needs of our consumer and enterprise customers. Our customer strategy is underpinned by digital innovation to deliver high quality services and unparalleled customer experience.

Customer satisfaction

We strive to deliver a superior customer experience by focusing on innovation, the quality of our products and services, and customer care. We continue to lead in customer experience and maintain our market leadership position. As of March 2021, we were leading the market with our Net Promoter Score in Singapore.

We aim to deepen the engagement and relationship with our customers in this highly competitive market. We are also committed to offering them a great network and service experience. Hence we continuously enhance the reach, reliability and quality of our networks in Singapore and Australia.

We have in the past few years changed the way we engage and serve customers as they adopt a digital lifestyle. We have invested in digitisation efforts across our retail experience, operations and call centres to improve customer experience while increasing productivity.

By using technologies such as visual virtual and live chat agents, customers no longer need to spend time waiting to talk to call centre agents.

During the year, we paid a S\$36,000 fine imposed by IMDA for a service disruption in August 2019 that affected 262,408 fixed lines. Optus did not receive any fines from the Australian Competition and Consumer Commission (ACCC) or ACMA. However, we were subjected to two non-monetary sanctions from ACMA during the year: a formal warning on how we consult on network deployment and an Enforceable Undertaking regarding breaches of consumer protection rules about how our customers migrate to the National Broadband Network (NBN).

We agreed to report quarterly to the ACMA for 12 months on our compliance under the Enforceable Undertaking and have reviewed our network deployment consultation processes and undertaken training with our consultants who carry out these public consultations on our behalf.

There was no non-monetary sanction and legal action regarding anti-competitive behaviour or violation of anti-trust legislation against the Singtel Group.



Optus' Customer Experience Reinvented

In December 2020, Optus transformed the customer service space by introducing a 'Community of Experts' programme, where every customer will be moved into his or her own dedicated team by the first half of 2021. The Community of Experts is a multi-disciplinary team centred around collaborating and solving customer needs with the aim of eliminating transfers to different departments for resolution.

This industry-changing move means customers will always return to the same team – their Community of Experts – regardless of their requests, including reviewing their mobile contracts and getting information about products. The team will also offer personalised responses based on customers' needs and challenges, such as network performance and outages. The service is available round-the-clock via messaging or calls. This removes friction points and creates a more efficient and seamless customer experience.

Driving innovation

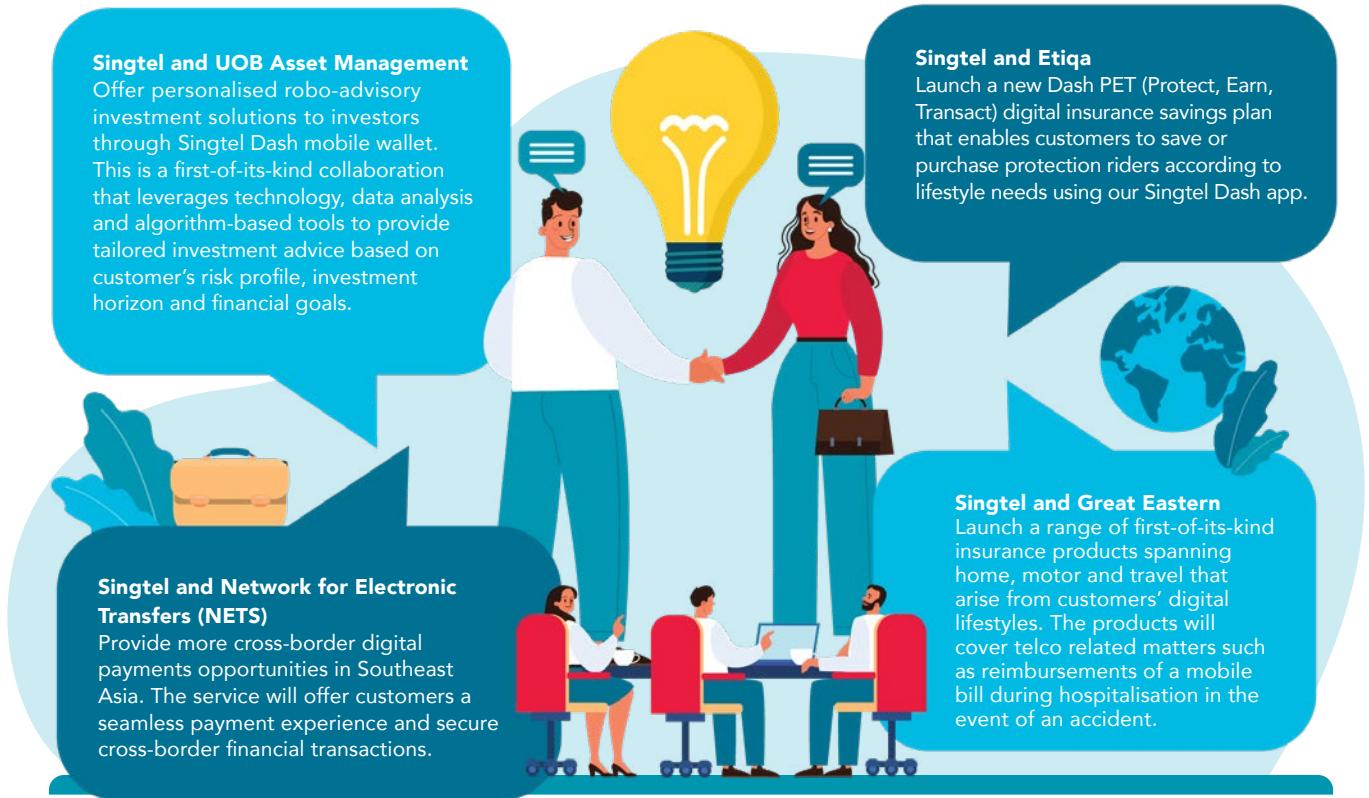
The Singtel Group innovates continuously to meet changing customer needs while taking advantage of new technology capabilities like 5G. We collaborated with strategic partners to expand our portfolio of financial services that includes smart investing, seamless payment options and insurance products (see Figure 2). The Singtel and Grab consortium also secured a digital full bank licence during the year.

Through Singtel Innov8, our corporate venture capital fund, Singtel also makes strategic investments into innovative companies with technologies that could enhance the Group's capabilities in delivering impactful solutions for our customers across various product segments and verticals.



In January 2021, our wholly owned subsidiary NCS launched NEXT Shenzhen Innovation Centre (SIC) in China to drive innovation and talent development aimed at helping enterprise clients accelerate their digital transformation efforts. It will specialise in developing 5G-enabled IoT applications, digital twin and blockchain solutions for industries such as telecommunications, financial services and real estate. Expanding its presence in the Greater China market reinforces NCS' commitment to provide our clients in Asia Pacific with direct access to leading-edge technologies and expertise.

Figure 2: Memorandum of Understanding and Partnerships to Drive Innovative Service Offerings



UNBOXED Lite 5G Experience Zones

In January 2021, we gave our iconic public payphone booths on Orchard Road a new lease of life with 5G connectivity. The booths, which have been around since 1994, have been transformed into next-generation multimedia kiosks equipped with 5G connectivity.

Named UNBOXED Lite, the kiosks are Singapore's first 5G experience zones and provide round-the-clock access to a wide range of services.

Anyone with a smartphone can tap on free 5G-powered WiFi to get a taste of Singtel's ultra-fast

5G speeds and smooth streaming of exclusive 4K content from our pay TV channel partner Love Nature. In a nostalgic move to offer a payphone experience of yesteryear, UNBOXED Lite offers free 3-minute local calls to all visitors. To provide a safe and healthy environment for users, all touch surfaces are disinfected frequently and coated with a long-lasting anti-microbial solution.



The Singtel Group intends to leverage 5G as a catalyst to unlock business opportunities and societal benefits across Singapore and Australia and advance both countries' digital economy. This builds on the momentum of our earlier 5G trials with partners like the Port of Singapore Authority to realise 5G benefits in actual use cases.

Raising community's 5G awareness

In Singapore, we installed 5G in UNBOXED, Singtel's 24/7 unmanned 5G-powered retail store, to let visitors witness first-hand the enhanced customer experience with 5G hyper-connectivity. Customers can also experience seamless delivery service through connected self-serve kiosks and receive real-time in-store analytics enabled by artificial intelligence from UNBOXED's roving smart robot ambassador Stanley and 5G virtual assistant Stella. UNBOXED won the Outstanding Store Design award at the World Retail Awards 2020.

We also rolled out UNBOXED Lite 5G experience zones across the island by creating multimedia kiosks that provide consumers with round-the-clock access to complimentary 5G-powered WiFi via their smartphones (see boxed story).

Enabling 5G industry application

We will expand our 5G ecosystems in Singapore and Australia by enabling enterprises and start-ups to develop low latency 5G solutions on our Multi-access

Edge Compute (MEC) infrastructure. MEC, leveraging the Amazon Web Services (AWS) Outposts, will enable 5G solutions like robotics, drones, autonomous vehicles and artificial intelligence to operate at ultra-low latency, closer to the end-users. Our 5G ecosystem of partners, including global cloud providers, technology providers, device manufacturers and apps developers, provides an essential one-stop hub for 5G and edge computing needs of enterprises and start-ups.

During the year, we launched the National Industry Innovation Network (NIIN) – an alliance between technology giant Cisco and universities, La Trobe and Curtin – to improve Australia's long-term digital economic resilience by accelerating digital transformation. A white paper will be developed on the role of collaborative technology in remote working, focusing on government, healthcare and education sectors, to better analyse the adoption and application of 5G technologies in different use cases.

We also partnered University of South Australia and James Cook University to identify 5G opportunities to better address real-world industry challenges. Together with Curtin University, we are building an on-campus 5G lab for research, teaching and learning, and exploring applications that will benefit industries and the Australian economy.

RESPONSIBLE SUPPLY CHAIN MANAGEMENT



We published Optus' Human Rights and Modern Slavery Statements in 2020.

Upholding human rights

We are committed to upholding and protecting the human rights of all individuals through a culture of trust, respect and inclusion in our company, supply chains and the communities where we operate, regardless of backgrounds, beliefs and abilities.

As a signatory to the UN Global Compact since 2007, we conduct business in line with its Ten Principles and the UN Guiding Principles on Business and Human Rights. We are also guided by international human rights principles as set out in the International Bill of Human Rights and the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work. This applies to how we operate and shape

positive sustainable change for our business, employees, customers, communities and the environment.

With the Modern Slavery Act passed in Australia in late 2018 and enforced in January 2019, we published Optus' first **Human Rights** and **Modern Slavery Statements** during the year. The Statements provide an overview of our approach to human rights, the standards we set for ourselves and people who work for us and on our behalf.

We will review the statements annually to continuously improve our approach to human rights and modern slavery. We strive to contribute positively and ensure that human rights are understood, observed and respected as far as is reasonably practical.

We have also rolled out Modern Slavery training modules for staff to increase their awareness of the role we and our suppliers play to reduce this risk in our supply chain.

Sustainable supply chain management

The Singtel Group has an extensive supply chain ranging from mobile and network equipment, and infrastructure suppliers to content providers, security and managing agents. In FY2021, they represented 5,163 suppliers globally, down from 6,469 from last year due to COVID-19 business expenditure impact and ongoing efforts to consolidate our supplier base. With the wide geography and complex nature of our supply chain, we believe that collaboration with socially and environmentally conscious suppliers will help us mitigate a significant proportion of our sustainability risks.

All new suppliers are assessed against ESG criteria through our sustainability questionnaire as part of their onboarding tender process. This is applied to tenders above \$200,000 across the Singtel Group. 100% of such new suppliers were assessed against the criteria during the year.

Supplier sustainability assessment

During the year, we also conducted a sustainability and organisational life cycle assessment on our supply chain to identify direct and indirect environment and social impact and risks across our business operations and value chain. As part of this exercise, we reviewed the ESG commitment of our top 100 suppliers, who constituted 65% of our procurement spend.

We analysed their processes and policies as well as products and services provided to us. We identified high impact areas of improvement and where we can influence positive change both environmentally and socially. The assessment adopted a similar methodology to an organisational life cycle assessment to reflect the multi-dimensional impact of our business covering Group Consumer, Group Enterprise, NCS and corporate functions. This is part of our aim to deliver greater outcomes for our business and society through our supply chain.

A) Identifying key suppliers

We used our total spend with suppliers to determine material suppliers whom we engaged. Our top 100 suppliers list was narrowed down to 38 suppliers who provided our top three material product groups: mobile handsets, network equipment and IT hardware/software.

We landed on 20 distinct suppliers representing 46% of our total procurement spend. This comprised mostly of suppliers for handsets, our most material product group, covering almost 30% of our spend with suppliers.

B) Assessing suppliers' environmental and social focus areas

We assessed these 20 suppliers on how they managed their environmental and social impact in their operations and supply chain, and whether they set targets aligned with the Singtel Group (see table 3).

Figure 3: Updated Supplier Sustainability and Life Cycle Assessments



Table 3: Key Findings of Our Supplier Sustainability and Life Cycle Assessments

Environmental		Social	
Key Focus Areas	Our Action Steps	Key Focus Areas	Our Action Steps
Greenhouse Gases (GHG) Emissions Ten suppliers (41%)* have disclosed Scope 1 and 2 GHG emissions with reduction targets between 2025 and 2040, and two suppliers are currently carbon neutral in their operations.	We will work with our suppliers to disclose and monitor GHG emissions, reduction targets, and reduction initiatives as part of our SBTi 2030 carbon reduction efforts.	Conflict Minerals Less than 12 suppliers (41%) have a conflict minerals statement and fewer have established a related policy, report and due diligence process.	We will work with our suppliers to monitor the prevention of the use of conflict minerals and encourage the adoption of ethical sourcing principles.
Energy Consumption Less than eight suppliers (<40%) disclose renewable energy usage and targets, and two suppliers are currently using 100% renewable energy.	We will encourage our suppliers to increase the use of renewable energy and set and disclose targets.	Forced and Bonded Labour Less than ten suppliers (41%) have disclosed a modern slavery/human rights statement and fewer have established a related policy and due diligence process.	We will require our suppliers to disclose their policy and position, and monitor the prevention of modern slavery in their operations and supply chain following global and national standards. We will require them to disclose any incidents of modern slavery.
Fuel Consumption Eight suppliers (35%) have initiatives focused on reducing fuel consumption and transportation emissions.	We will encourage suppliers to use compact, lightweight packaging and optimise delivery routes using less carbon-intensive modes of transportation.	Decent Working Conditions, Health and Safety Less than 11 suppliers (41%) have disclosed a health and safety as well as labour/human rights statement and established a related policy and due diligence process.	We will require our suppliers to ensure the provision of decent working conditions in their operations and supply chain and comply with global and local laws and regulations governing workers' health and safety.
Waste Management 11 suppliers (40%) have a recycling programme in place for their products and/or packaging.	We are reviewing our supplier agreements to include a producer responsibility provision covering take-back schemes and proper end-of-life treatment.	Privacy Rights 13 suppliers (42%) have disclosed a privacy rights statement and established a related policy and due diligence process.	We will require our suppliers to develop a formal privacy rights statement and/or policy and disclose privacy risks and incidents that may affect our supply or our customers.

* Number in brackets refers to percentage of our procurement spend

We also analysed industry and international standards, desktop research and reports, as well as environmental and social actions and policies in the telecommunications sector. In addition, we reviewed how our industry peers were managing their suppliers in these aspects.

Third-party sustainability risk assessments of current suppliers

Earlier in the year, we concluded a sustainability risk assessment of our active suppliers using a framework we developed with supply chain expert ELEVATE.

Suppliers were assessed according to inherent geographic and product risks and those identified completed a Sustainability Self-Assessment Questionnaire on the controls they have in place in the following areas: corporate governance, diversity, human rights, labour rights and anti-modern slavery, work health and safety, environmental and energy management, and conflict minerals.

Next steps

Next year, we plan to implement tailored intervention programmes based on these results to support identified suppliers in integrating sustainability-related practices

into their business processes. We will also administer the questionnaire to our suppliers who are on the next tier of risk assessment.

We are looking into the action steps described in Table 3. We will continue to review our Supplier Code of Conduct and increase our supplier engagement and education activities. These will complement our current supplier assessments we have in place.

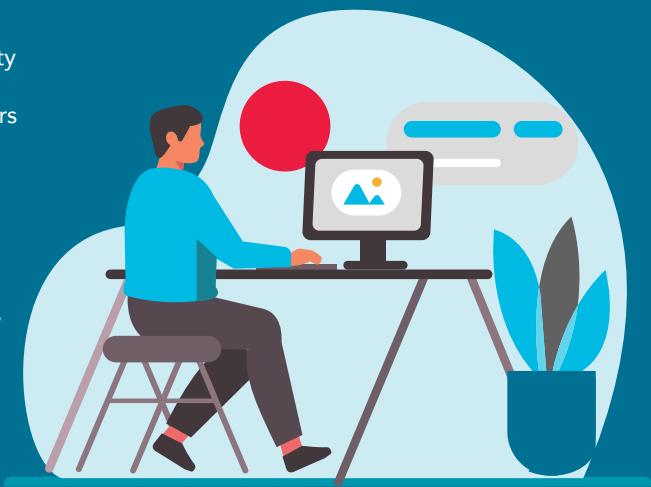


Workplace Safety and Health

Workplace safety and health (WSH) is our top priority and we strive to inculcate good safety habits and practices in our employees, suppliers and contractors to ensure that work activities are carried out safely.

We engage only qualified contractors that meet stringent safety requirements during the tender process. We also work closely with appointed contractors to maintain high safety and health standards, including regular dialogue on best safety practices and feedback on their performance.

During the year, Singtel and Optus successfully attained the ISO 45001 certification, a new international ISO standard that provides the framework for organisations to improve workers' health and safety, reduce risks, and create safer working conditions.



Singtel Safe Contractor Accreditation (SCA) Scheme

We introduced SCA scheme in 2016, a set of Singtel's WSH standards for contractors who perform high-risk technical or physical work to mitigate safety risks. During the year, 77 accredited contractors successfully maintained the validity of their accreditation. Those who failed were barred from future contracts with Singtel. The drop in number was mainly due to contractors not having any work with us or expired contracts.

FY	2017	2018	2019	2020	2021
Number of contractors accredited	48	62	68	98	77

Critical Permit to Work system

Through the Critical Permit to Work system, we adopt stringent safety checks and site enforcement in areas of high-risk work such as confined space and work at height in our Singapore operations. No incident was reported during the year.

Australian Standard for Safety Management

We ensure continued certification of AS4801, the Australian Standard for Safety Management, for our operations in Australia to meet a high standard of safety management system.

Critical Incident Hotline

We established a Workplace Health and Safety Critical Incident Hotline to report critical incidents immediately in Australia. During the year, there were 11 cases of incidents reported.

Table 4: FY2021 WSH Indicators of Third-Party Contractors¹

Contractor safety and health	SINGTEL	OPTUS ²
Workplace injury incidence rate	13.7	5.3
Workplace injury frequency rate	4.4	5.9
Workplace injury severity rate	61.1	11.7
Fatalities	0	0

1. Include only data for cleaners and security guards

2. Only five months of data is available for security guards

Key Environmental and Social Performance Indicators

	SINGTEL			OPTUS			SINGTEL GROUP		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
 Environmental Performance									
Total energy use (GJ)	1,602,698	1,466,802	1,347,094	1,909,806	1,834,722	1,749,622	3,512,504	3,301,524	3,096,716
Total carbon emissions (tonnes CO ₂ equivalent)	165,331	162,566	164,629	442,455	427,706	418,060	607,786	590,272	582,689
Carbon intensity (tCO ₂ e/TB) ¹	0.0260	0.0325	0.0416	0.0778	0.1102	0.1395	0.0501	0.0665	0.0845
Potable water use (m ³) ²	623,588	683,847	620,864	47,262	57,861	63,261	670,850	741,708	684,125
Use of recycled water instead of potable water (m ³)	225,453	180,799	132,374	13,027	10,876	15,514	238,480	191,675	147,887
Total hazardous and non-hazardous waste (tonnes) ³	4,150	7,658	7,538	771	883	2,294	4,921	8,541	9,832
 Social Performance: People									
Total employees	12,391	12,145	12,589	7,687	7,663	7,757	20,078	19,808	20,346
Male	8,003	7,842	8,136	5,287	5,307	5,298	13,290	13,149	13,434
Female	4,388	4,303	4,453	2,400	2,356	2,459	6,788	6,659	6,912
New employee hires	15.5%	14.1%	15.7%	15.2%	23.1%	18.6%	15.3%	17.6%	16.8%
Employee voluntary turnover	13.2%	15.7%	18.3%	12.5%	15.3%	17.0%	12.9%	15.5%	17.8%
Salary ratio (female:male) ¹									
Operations and Support	1 : 1	0.99 : 1	1 : 0.98	1 : 0.94	1 : 0.95	1 : 0.96	1 : 0.97	1 : 0.97	1 : 0.98
Professional	0.96 : 1	0.96 : 1	0.97 : 1	0.94 : 1	0.95 : 1	0.95 : 1	0.95 : 1	0.95 : 1	0.95 : 1
Middle Management	0.95 : 1	0.96 : 1	0.97 : 1	0.99 : 1	0.97 : 1	0.97 : 1	0.97 : 1	0.97 : 1	0.97 : 1
Bonus ratio (female:male) ²									
Operations and Support	1 : 0.99	1 : 0.96	1 : 0.98	1 : 0.94	0.99 : 1	0.91 : 1	1 : 0.97	1 : 0.98	0.97 : 1
Professional	0.98 : 1	0.99 : 1	0.99 : 1	0.89 : 1	0.93 : 1	0.91 : 1	0.95 : 1	0.96 : 1	0.95 : 1
Middle Management	1 : 0.94	1 : 0.87	1 : 0.85	0.95 : 1	0.95 : 1	0.90 : 1	1 : 0.97	1 : 0.98	1 : 0.96
Total training investment (\$ million)	S\$11.8	S\$14.6	S\$15.6	A\$5.0	A\$7.8	A\$10.7	S\$16.8	S\$21.9	S\$26.1
Average training hours per employee	43.5	40.2	34.8	14.6	19.6	18.4	33.0	32.7	28.9
Employee health and safety ³									
Workplace injury incidence rate (per 1,000 employees)	0.8	0.8	1.5	2.6	2.3	2.2	1.5	1.4	1.8
Workplace injury frequency rate (per million hours worked)	0.4	0.4	0.7	1.5	1.4	1.3	0.7	0.7	0.9
Total occupational disease cases	0	-	-	0	0	-	0	-	-
High consequence injury rate (per million hours worked)	0.04	-	-	0	-	-	0.02	-	-
Fatalities	0	0	0	0	0	0	0	0	0
 Social Performance: Community									
Community investment (\$ million) ¹	S\$17.72	S\$8.62	S\$11.68	A\$20.28	A\$14.67	A\$8.72m	S\$37.63m	S\$22.34	S\$20.31
Total volunteering hours	2,439	11,487	13,503	8,214	16,739	13,206	10,653	28,226	26,709
Digital enablement reach	18,009	54,776	27,000	76,667	59,189	58,954	94,681	113,965	85,954

Footnotes:

Environment

1. Covers Scope 1 and 2 only.
2. Covers Optus Sydney campus and Optus Melbourne offices only (FY2020 and FY2021). Optus Sydney campus (FY2019).
3. Data covers waste directly managed by Optus' contracted waste vendor.

People

1. Based on average monthly salary of regular employees.

2. Based on average annual bonus of regular employees.

3. Workplace safety and health metrics are based on the International Labour Organization (ILO) definitions, subject to country definition of lost work shifts e.g. Optus excludes weekends from medical leave when calculating these rates.

Community

1. Includes direct financial support, in-kind charitable sponsorship and staff volunteering hours. This has been verified by the Business for Societal Impact (B4SI).

Glossary

List of Key Acronyms	
ABR	Australian Business Roundtable for Disaster Resilience & Safer Communities
ABCN	Australian Business and Community Network
ACCC	Australian Competition & Consumer Commission
ACMA	Australian Communications and Media Authority
ACT RFS	Australian Capital Territory Rural Fire Service
ASAS	Advertising Standards Authority of Singapore
AND	Australian Network on Disability
ANU	Australian National University
APCO	Australian Packaging Covenant Organisation
ESG	Environmental, Social and Governance
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
GSMA	Global System for Mobile Communications Association
ICT	Info-communications Technology
IMDA	Infocomm Media Development Authority
LCA	Life Cycle Assessment
MAS	Monetary Authority of Singapore
NDRR	National Disaster Risk Reduction
NGO	Non-Governmental Organisation
OAIC	Office of the Australian Information Commissioner
PDPA	Personal Data Protection Act
PDPC	Personal Data Protection Commission
PPA	Power Purchase Agreement
SASB	Sustainability Accounting Standards Board
SBNoD	Singapore Business Network on DisAbility
SBTi	Science Based Targets initiative
SME	Small and Medium-sized Enterprise
STLF	Singtel Touching Lives Fund
TCFD	Task Force on Climate-related Financial Disclosures
UNGC	United Nations Global Compact
UN SDGs	United Nations Sustainable Development Goals
WSH	Workplace safety and health

Reference: Policies and Statements	
Optus Human Rights Statement	https://www.optus.com.au/content/dam/optus/documents/about-us/sustainability/governance/human-rights-statement_fa1_v2.pdf
Optus Modern Slavery Statement	https://moderndlaveryregister.gov.au/statements/file/7136495d-a6a7-4884-91e3-ba6a9db27db5/
Optus Privacy Policy	https://www.optus.com.au/about/legal/privacy
Singtel Data Protection Policy	https://www.singtel.com/data-protection
Singtel Whistleblower Policy	https://www.singtel.com/about-us/company/corporate-governance/whistleblower-policy
Singtel Responsible Tax Management Statement	https://www.singtel.com/content/dam/singtel/corporate/responsible-tax-management.pdf
Singtel Group Anti-Bribery and Corruption Policy	https://www.singtel.com/content/dam/singtel/corporate/anti-bribery-and-corruption-policy.pdf
Singtel Group Code of Conduct	https://www.singtel.com/content/dam/singtel/corporate/Code_of_conduct.pdf
Singtel Group Environment Policy	https://www.singtel.com/about-us/sustainability/sustainability-at-singtel/environment
Singtel Group Health, Safety and Security Policy	https://www.singtel.com/about-us/sustainability/sustainability-at-singtel/people
Singtel Group Supplier Code of Conduct	https://www.singtel.com/content/dam/singtel/about-us-singtel/tender/singtel-group-supplier-code-of-conduct.pdf

GRI Content Index

GENERAL DISCLOSURES		
GRI STANDARD	DISCLOSURE	PAGE NUMBER
GRI 101:Foundation 2016		Singtel Group Sustainability Report 2021
Organisational profile		
102-1	Name of the organisation	About this Report
102-2	Activities, brands, products, and services	Annual Report
102-3	Location of headquarters	About this Report
102-4	Location of operations	About this Report
102-5	Ownership and legal form	About this Report
102-6	Markets served	Annual Report
102-7	Scale of the organisation	29, Annual Report
102-8	Information on employees and other workers	32, 35-36
102-9	Supply chain	54-57
102-10	Significant changes to the organisation and its supply chain	About this Report
102-11	Precautionary Principle or approach	5, Website
102-12	External initiatives	3, 5, 13-14, 16-26, 30-31, 34, 38-46, 48-57
102-13	Membership of associations	3, 5, 14, 26, 30, 34, 44-45, 54
Strategy		
102-14	Statement from senior decision-maker	3-4
Ethics and integrity		
102-16	Values, principles, standards, and norms of behaviour	Website
Governance		
102-18	Governance structure	10, 18
Stakeholder engagement		
102-40	List of stakeholder groups	11-12
102-41	Collective bargaining agreements	30
102-42	Identifying and selecting stakeholders	5-6
102-43	Approach to stakeholder engagement	5-7
102-44	Key topics and concerns raised	7-8, 11-12
Reporting practice		
102-45	Entities included in the consolidated financial statements	Annual Report
102-46	Defining report content and topic Boundaries	5, 7-8, About this Report
102-47	List of material topics	7-8,13
102-48	Restatements of information	About this Report
102-49	Changes in reporting	About this Report
102-50	Reporting period	About this Report
102-51	Date of most recent report	About this Report
102-52	Reporting cycle	About this Report
102-53	Contact point for questions regarding the report	About this Report
102-54	Claims of reporting in accordance with the GRI Standards	About this Report
102-55	GRI content index	Website
102-56	External assurance	About this Report, Website

MATERIAL TOPICS				
GRI STANDARD	DISCLOSURE		PAGE NUMBER	LEVEL OF EXTERNAL ASSURANCE
CLIMATE CHANGE AND CARBON				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	15, Website	
	103-2	The management approach and its components	16-26	
	103-3	Evaluation of the management approach	16-26	
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	27	Singtel Group
	302-3	Energy intensity	27	Singtel Group
	302-4	Reduction of energy consumption	24	Singtel
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	27	Singtel Group
	305-2	Energy indirect (Scope 2) GHG emissions	27	Singtel Group
	305-3	Other indirect (Scope 3) GHG emissions	27	Singtel Group
	305-4	GHG emissions intensity	27	Singtel Group
	305-5	Reduction of GHG emissions	24	Singtel
CLIMATE AND INFRASTRUCTURE RESILIENCE				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	15-16, Website	
	103-2	The management approach and its components	16-26	
	103-3	Evaluation of the management approach	16-26	
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	25-26	
	203-2	Significant indirect economic impacts	26	
TALENT ATTRACTION AND RETENTION				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	31, Website	
	103-2	The management approach and its components	31	
	103-3	Evaluation of the management approach	31	
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	32, 35-36	Singtel Group
TALENT DEVELOPMENT AND FUTURE SKILLS				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	30, Website	
	103-2	The management approach and its components	30-31	
	103-3	Evaluation of the management approach	30-31	
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	31, 36	Singtel Group
	404-2	Programmes for upgrading employee skills and transition assistance programmes	30-31	
EMPLOYEE SAFETY AND WELL-BEING				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	28, 56-57, Website	
	103-2	The management approach and its components	28-29, 56-57	
	103-3	Evaluation of the management approach	28-29, 56-57	
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	28-29, 57	
	403-2	Hazard identification, risk assessment and incident investigation	28-29, 56-57	
	403-3	Occupational health services	28-29, 57	
	403-4	Worker participation, consultation and communication on occupational health and safety	28-29, 57	
	403-5	Worker training on occupational health and safety	28-29, 57	
	403-6	Promotion of worker health	28-29, 57	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	28-29, 57	
	403-9	Work-related injuries	29, 36, 57	Singtel Group
	403-10	Work-related ill health	29, 36, 57	Singtel Group

MATERIAL TOPICS				
GRI STANDARD	DISCLOSURE		PAGE NUMBER	LEVEL OF EXTERNAL ASSURANCE
DATA PRIVACY AND CYBER SECURITY				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	46, Website	
	103-2	The management approach and its components	46-49	
	103-3	Evaluation of the management approach	46-49	
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	48	Singtel Group
ETHICAL AND FAIR BUSINESS PRACTICES				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	49, Website	
	103-2	The management approach and its components	49	
	103-3	Evaluation of the management approach	49	
GRI: 417 Marketing and Labeling 2016	417-3	Incidents of non-compliance concerning marketing communications	49	
INNOVATION				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	52, Website	
	103-2	The management approach and its components	52-53	
	103-3	Evaluation of the management approach	52-53	
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	52-53, About this Report	
	203-2	Significant indirect economic impacts	52-53	
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GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	51, Website	
	103-2	The management approach and its components	51	
	103-3	Evaluation of the management approach	51	
GRI 419: Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	51	Singtel Group
SUSTAINABLE SUPPLY CHAIN MANAGEMENT				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	54, Website	
	103-2	The management approach and its components	54-57	
	103-3	Evaluation of the management approach	54-57	
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	55	Singtel Group
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	55	Singtel Group
ANTI-BRIBERY AND CORRUPTION				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	49, Website	
	103-2	The management approach and its components	49-50	
	103-3	Evaluation of the management approach	49-50	
GRI 205: Anti-corruption 2016	205-3	Confirmed incidents of corruption and actions taken	49-50	
COMMUNITY RESILIENCE AND DISASTER RESPONSE				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	37, Website	
	103-2	The management approach and its components	37-45	
	103-3	Evaluation of the management approach	37-45	
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	38	
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	39	
GRI 413: Local Communities 2016	413-2	Operations with significant actual and potential negative impacts on local communities	37-45	

MATERIAL TOPICS				
GRI STANDARD	DISCLOSURE		PAGE NUMBER	LEVEL OF EXTERNAL ASSURANCE
ONLINE SAFETY				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	42, Website	
	103-2	The management approach and its components	42-43	
	103-3	Evaluation of the management approach	42-43	
GRI 413: Local Communities 2016	413-2	Operations with significant actual and potential negative impacts on local communities	42-43	
WASTE MANAGEMENT				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	26, Website	
	103-2	The management approach and its components	26	
	103-3	Evaluation of the management approach	26	
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	26	
	306-2	Management of significant waste-related impacts	26	
	306-3	Waste generated	27	Singtel
	306-4	Waste diverted from disposal	27	Singtel Group*
	306-5	Waste directed to disposal	27	Singtel Group*
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GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	29, Website	
	103-2	The management approach and its components	29	
	103-3	Evaluation of the management approach	29	
GRI 402: Employment 2016	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	29-30	
DIVERSITY AND INCLUSION				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	33, Website	
	103-2	The management approach and its components	33-34	
	103-3	Evaluation of the management approach	33-34	
GRI 405: Diversity and Equal Opportunity 2016	405-2	Ratio of basic salary and remuneration of women to men	35	
EDUCATION AND EMPLOYABILITY				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	44, Website	
	103-2	The management approach and its components	44-45	
	103-3	Evaluation of the management approach	44-45	
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	44	
GRI 413: Local Communities 2016	413-2	Operations with significant actual and potential negative impacts on local communities	44-45	
WATER MANAGEMENT				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	27, Website	
	103-2	The management approach and its components	27	
	103-3	Evaluation of the management approach	27	
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	27, Website	
	303-2	Management of water discharge-related impacts	27, Website	
	303-3	Water withdrawal by source	27	Singtel Group
PRODUCT HEALTH AND SAFETY				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	46, Website	
	103-2	The management approach and its components	46-48	
	103-3	Evaluation of the management approach	46-48	
GRI 416: Customer Health and Safety 2016	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	48	
GRI 419: Socio-economic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	51	Singtel Group

*Non-hazardous waste for Optus only.

Sustainability Accounting Standards Board (SASB) Index

This is the first time that the Singtel Group is reporting our ESG performance using the SASB framework. The tables below outline how our existing disclosures align with the recommended metrics under the SASB Telecommunications Services standard.

SASB Activity Metrics

Topic	SASB Code	Activity Metric	Unit Measure	Remark
Number of wireless subscribers	TC-TL-000.A	Number of customers that contract with the entity for mobile services, which include cellular phone service and/or wireless data service	Number	14,102,000
Number of wireline subscribers	TC-TL-000.B	Number customers that contract with the entity for fixed line phone services	Number	>40,000
Number of broadband subscribers	TC-TL-000.C	Number of customers that contract with the entity for fixed line cable and internet services, which include WiFi connections	Number	1,721,000
Network traffic	TC-TL-000.D		Petabytes	11,832

SASB Accounting Metrics

Dimension	Topic	SASB Code	Account Metric	Unit Measure	Remark
Environment	Environmental Footprint of Operations	TC-TL-130a.1	1. Total energy consumed 2. Percentage grid electricity 3. Percentage renewable	• Gigajoules (GJ) • Percentage (%)	1. 3,512,504 2. 98.5% 3. 0.3% See Environmental Performance Indicators (page 27)
Social Capital	Data Privacy	TC-TL-220a.1	Description of policies and practices relating to behavioural advertising and customer privacy	N/A	Refer to Singtel Data Protection Policy and Optus Privacy Policy
		TC-TL-220a.2	Number of customers whose information is used for secondary purposes	Number	Singtel does not have these specified metrics. Our Data Protection Policy describes the customer information we collect and how we use it
		TC-TL-220a.3	Total amount of monetary losses as a result of legal proceedings associated with customer privacy	Reporting currency	Nil Refer to Sustainable Value Creation chapter (page 48)
		TC-TL-220a.4	1. Number of law enforcement requests for customer information 2. Number of customers whose information was requested 3. Percentage resulting in disclosure	Number Percentage (%)	We do not disclose unless required by law
	Data Security	TC-TL-230a.1	1. Number of data breaches 2. Percentage involving personally identifiable information (PII) 3. Number of customers affected	Number Percentage (%)	1. 135 2. 90% 3. About 130,000 Refer to Sustainable Value Creation chapter (page 48)
		TC-TL-230a.2	Description of approach to identifying and addressing data security risks, including use of third-party cyber security standards	N/A	Refer to Sustainable Value Creation chapter (page 46-49)
Business Model & Innovation	Product End-of-life Management	TC-TL-440a.1	1) Materials recovered through take back programmes, percentage of recovered materials that were (2) reused, (3) recycled, and (4) landfilled	• Metric tons (t) • Percentage (%)	1. 3,428 2. 0% 3. 93% 4. 0% See Environmental Performance Indicators (page 27)
Leadership & Governance	Competitive Behavior & Open Internet	TC-TL-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behaviour regulations	Reporting currency	Nil Refer to Sustainable Value Creation chapter (page 51)
		TC-TL-520a.2	Average actual sustained download speed of 1. owned and commercially-associated content and 2. non-associated content	Megabits per second (Mbps)	Singtel does not have these specified metrics. We publish our 4G speed on our website , presented as a range of speed for 'Stationary' state and 'Mobility' state
		TC-TL-520a.3	Description of risks and opportunities associated with net neutrality, paid peering, zero rating, and related practices 1. System average interruption frequency and 2. Customer average interruption duration	N/A • Disruptions per customer • Hours per customer	Singtel complies with IMDA's Net Neutrality Policy Singtel does not have these specified metrics Refer to Sustainable Value Creation chapter (page 51)
	Managing System Risks from Technology Disruption	TC-TL-550a.1	Discussion of systems to provide unimpeded service during service interruptions	N/A	Refer to Climate Change and Environment chapter (page 13, 15-26)

UN Global Compact Principles

PRINCIPLE	DESCRIPTION	PAGE REFERENCE
Human Rights		
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	28-30, 33-34, 54, 56-57
Principle 2	Make sure that they are not complicit in human rights abuses	28-30, 33-34, 54, 56-57
Labour		
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	30
Principle 4	The elimination of all forms of forced and compulsory labour;	29-30, 33-34, 54, 56-57
Principle 5	The effective abolition of child labour; and	30, 33, 54, 56-57
Principle 6	The elimination of discrimination in respect of employment and occupation.	33-34
Environment		
Principle 7	Businesses should support a precautionary approach to environmental challenges;	2-3, 15-26, 55-56
Principle 8	Undertake initiatives to promote greater environmental responsibility; and	2-3, 15-26, 55-56
Principle 9	Encourage the development and diffusion of environmentally friendly technologies.	23-26
Anti-Corruption		
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	49-50, 55-56

Independent Limited Assurance Statement



Independent Limited Assurance Statement in connection with the Subject Matters included in the Sustainability Report of Singapore Telecommunications Limited ("Singtel Group") for the financial year ended 31 March 2021.

We have performed a limited assurance engagement on the Subject Matters set out in the Subject Matters section below. These Subject Matters are included in the attached Sustainability Report of Singapore Telecommunications Limited ("Singtel") and Singtel Optus Pty Ltd ("Optus") (Collectively referred to as "Singtel Group") for the financial year ended 31 March 2021 ("the Sustainability Report").

Subject matters

Our limited assurance engagement covers the following Subject Matters:

- * Pertains to only Singtel's Sustainability Performance Data
- ** Pertains to Singtel Group's Sustainability Performance Data
- + Pertains to only Optus' Sustainability Performance Data for non-hazardous waste

ESG Topics	GRI Topic-Specific Disclosure	"Shall" requirements under each disclosure	
Climate change and Carbon; Climate and Infrastructure Resilience; Water Management (non-material)	GRI (2016) 302-1**	Energy consumption within the organisation	<p>a. Total fuel consumption within the organisation from non-renewable sources, in joules or multiples, and including fuel types used.</p> <p>b. Total fuel consumption within the organisation from renewable sources, in joules or multiples, and including fuel types used.</p> <p>c. In joules, watt-hours or multiples, the total:</p> <ul style="list-style-type: none"> i. Electricity consumption ii. Heating consumption iii. Cooling consumption iv. Steam consumption <p>d. In joules, watt-hours or multiples, the total:</p> <ul style="list-style-type: none"> i. Electricity sold ii. Heating sold iii. Cooling sold iv. Steam sold <p>e. Total energy consumption within the organisation, in joules or multiples.</p> <p>f. Standards, methodologies, assumptions, and/or calculation tools used.</p> <p>g. Source of the conversion factors used.</p> <p>2.1 When compiling the information specified in Disclosure 302-1, the reporting organisation shall:</p> <ul style="list-style-type: none"> 2.1.1 avoid the double-counting of fuel consumption, when reporting self-generated energy consumption. If the organisation generates electricity from a non-renewable or renewable fuel source and then consumes the generated electricity, the energy consumption shall be counted once under fuel consumption; 2.1.2 report fuel consumption separately for non-renewable and renewable fuel sources; 2.1.3 only report energy consumed by entities owned or controlled by the organisation; 2.1.4 calculate the total energy consumption within the organisation in joules or multiples using the following formula: Total energy consumption within the organisation = Non-renewable fuel consumed + Renewable fuel consumed + Electricity, heating, cooling, and steam purchased for consumption + Self-generated electricity, heating, cooling, and steam, which are not consumed (see clause 2.1.1) – Electricity, heating, cooling, and steam sold
	GRI (2016) 302-3**	Energy intensity	<p>a. Energy intensity ratio for the organisation.</p> <p>b. Organisation-specific metric (the denominator) chosen to calculate the ratio.</p> <p>c. Types of energy included in the intensity ratio; whether fuel, electricity, heating, cooling, steam, or all.</p> <p>d. Whether the ratio uses energy consumption within the organisation, outside of it, or both.</p> <p>2.5 When compiling the information specified in Disclosure 302-3, the reporting organisation shall:</p> <ul style="list-style-type: none"> 2.5.1 calculate the ratio by dividing the absolute energy consumption (the numerator) by the organisation-specific metric (the denominator); 2.5.2 if reporting an intensity ratio both for the energy consumed within the organisation and outside of it, report these intensity ratios separately.

ESG Topics	GRI Topic-Specific Disclosure	"Shall" requirements under each disclosure	
Climate change and Carbon; Climate and Infrastructure Resilience; Water Management (non-material)	GRI (2016) 302-4*	Reduction of energy consumption	<p>a. Amount of reductions in energy consumption achieved* as a direct result of conservation and efficiency initiatives, in joules or multiples. <i>#: reported, by Singtel, as estimated annualised energy savings and emissions avoidance</i></p> <p>b. Types of energy included in the reductions; whether fuel, electricity, heating, cooling, steam, or all.</p> <p>c. Basis for calculating reductions in energy consumption, such as base year or baseline, including the rationale for choosing it.</p> <p>d. Standards, methodologies, assumptions, and/or calculation tools used.</p> <p>2.7 When compiling the information specified in Disclosure 302-4, the reporting organisation shall:</p> <p>2.7.1 exclude reductions resulting from reduced production capacity or outsourcing;</p> <p>2.7.2 describe whether energy reduction is estimated, modelled, or sourced from direct measurements. If estimation or modelling is used, the organisation shall disclose the methods used.</p>
	GRI (2018) 303-3**	Water withdrawal	<p>a. Total water withdrawal from all areas in megalitres, and a breakdown of this total by the following sources, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Produced water; v. Third-party water. <p>b. Total water withdrawal from all areas with water stress in megalitres, and a breakdown of this total by the following sources, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Produced water; v. Third-party water, and a breakdown of this total by the withdrawal sources listed in i-iv. <p>d. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p> <p>2.1 When compiling the information specified in Disclosure 303-3, the reporting organisation shall use publicly available and credible tools and methodologies for assessing water stress in an area.</p>
	GRI (2016) 305-1**	Direct (Scope 1) GHG emissions	<p>a. Gross direct (Scope 1) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>c. Biogenic CO₂ emissions in metric tons of CO₂ equivalent.</p> <p>d. Base year for the calculation, if applicable, including:</p> <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions. <p>e. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>f. Consolidation approach for emissions; whether equity share, financial control, or operational control.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p> <p>2.1 When compiling the information specified in Disclosure 305-1, the reporting organisation shall:</p> <p>2.1.1 exclude any GHG trades from the calculation of gross direct (Scope 1) GHG emissions;</p> <p>2.1.2 report biogenic emissions of CO₂ from the combustion or biodegradation of biomass separately from the gross direct (Scope 1) GHG emissions. Exclude biogenic emissions of other types of GHG (such as CH₄ and N₂O), and biogenic emissions of CO₂ that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass).</p>
	GRI (2016) 305-2**	Energy indirect (Scope 2) GHG emissions	<p>a. Gross location-based energy indirect (Scope 2) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. If applicable, gross market-based energy indirect (Scope 2) GHG emissions in metric tons of CO₂ equivalent.</p> <p>c. If available, the gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>d. Base year for the calculation, if applicable, including:</p> <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions.

ESG Topics	GRI Topic-Specific Disclosure	"Shall" requirements under each disclosure	
Climate change and Carbon; Climate and Infrastructure Resilience; Water Management (non-material)	GRI (2016) 305-2**	Energy indirect (Scope 2) GHG emissions	<p>e. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>f. Consolidation approach for emissions; whether equity share, financial control, or operational control.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p> <p>2.3 When compiling the information specified in Disclosure 305-2, the reporting organisation shall:</p> <p>2.3.1 exclude any GHG trades from the calculation of gross energy indirect (Scope 2) GHG emissions;</p> <p>2.3.2 exclude other indirect (Scope 3) GHG emissions that are disclosed as specified in Disclosure 305-3;</p> <p>2.3.3 account and report energy indirect (Scope 2) GHG emissions based on the location-based method, if it has operations in markets without product or supplier-specific data;</p> <p>2.3.4 account and report energy indirect (Scope 2) GHG emissions based on both the location-based and market-based methods, if it has any operations in markets providing product or supplier-specific data in the form of contractual instruments.</p>
	GRI (2016) 305-3**	Other indirect (Scope 3) GHG emissions	<p>a. Gross other indirect (Scope 3) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. If available, the gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>c. Biogenic CO₂ emissions in metric tons of CO₂ equivalent.</p> <p>d. Other indirect (Scope 3) GHG emissions categories and activities included in the calculation.</p> <p>e. Base year for the calculation, if applicable, including:</p> <p>i. the rationale for choosing it;</p> <p>ii. emissions in the base year;</p> <p>iii. the context for any significant changes in emissions that triggered recalculations of base year emissions.</p> <p>f. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p> <p>2.5 When compiling the information specified in Disclosure 305-3, the reporting organisation shall:</p> <p>2.5.1 exclude any GHG trades from the calculation of gross other indirect (Scope 3) GHG emissions;</p> <p>2.5.2 exclude energy indirect (Scope 2) GHG emissions from this disclosure. Energy indirect (Scope 2) GHG emissions are disclosed as specified in Disclosure 305-2;</p> <p>2.5.3 report biogenic emissions of CO₂ from the combustion or biodegradation of biomass that occur in its value chain separately from the gross other indirect (Scope 3) GHG emissions. Exclude biogenic emissions of other types of GHG (such as CH₄ and N₂O), and biogenic emissions of CO₂ that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass).</p>
	GRI (2016) 305-4**	GHG emissions intensity	<p>a. GHG emissions intensity ratio for the organisation.</p> <p>b. Organisation-specific metric (the denominator) chosen to calculate the ratio.</p> <p>c. Types of GHG emissions included in the intensity ratio; whether direct (Scope 1), energy indirect (Scope 2), and/or other indirect (Scope 3).</p> <p>d. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>2.7 When compiling the information specified in Disclosure 305-4, the reporting organisation shall:</p> <p>2.7.1 calculate the ratio by dividing the absolute GHG emissions (the numerator) by the organisation-specific metric (the denominator);</p> <p>2.7.2 if reporting an intensity ratio for other indirect (Scope 3) GHG emissions, report this intensity ratio separately from the intensity ratios for direct (Scope 1) and energy indirect (Scope 2) emissions.</p>
	GRI (2016) 305-5*	Reduction of GHG emissions	<p>a. GHG emissions reduced as a direct result of reduction initiatives, in metric tons of CO₂ equivalent.</p> <p>b. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>c. Base year or baseline, including the rationale for choosing it.</p> <p>d. Scopes in which reductions took place; whether direct (Scope 1), energy indirect (Scope 2), and/or other indirect (Scope 3).</p> <p>e. Standards, methodologies, assumptions, and/or calculation tools used.</p>

ESG Topics	GRI Topic-Specific Disclosure		"Shall" requirements under each disclosure
Climate change and Carbon; Climate and Infrastructure Resilience; Water Management (non-material)	GRI (2016) 305-5*	Reduction of GHG emissions	<p>2.9 When compiling the information specified in Disclosure 305-5, the reporting organisation shall:</p> <ul style="list-style-type: none"> 2.9.1 exclude reductions resulting from reduced production capacity or outsourcing; 2.9.2 use the inventory or project method to account for reductions; 2.9.3 calculate an initiative's total reductions of GHG emissions as the sum of its associated primary effects and any significant secondary effects; 2.9.4 if reporting two or more Scope types, report the reductions for each separately; 2.9.5 report reductions from offsets separately.
Waste management	GRI (2020) 306-3*	Waste generated	<p>a. Total weight of waste generated in metric tons, and a breakdown of this total by composition of the waste.</p> <p>b. Contextual information necessary to understand the data and how the data has been compiled.</p> <p>2.1 When compiling the information specified in Disclosure 306-3-a, the reporting organisation shall:</p> <ul style="list-style-type: none"> 2.1.1 exclude effluent, unless required by national legislation to be reported under total waste; 2.1.2 use 1000 kilograms as the measure for a metric ton
	GRI (2020) 306-4**	Waste diverted from disposal	<p>a. Total weight of waste diverted from disposal in metric tons, and a breakdown of this total by composition of the waste.</p> <p>b. Total weight of hazardous waste diverted from disposal in metric tons, and a breakdown of this total by the following recovery operations:</p> <ul style="list-style-type: none"> i. Preparation for reuse; ii. Recycling; iii. Other recovery operations. <p>c. Total weight of non-hazardous waste diverted from disposal in metric tons, and a breakdown of this total by the following recovery operations:</p> <ul style="list-style-type: none"> i. Preparation for reuse; ii. Recycling; iii. Other recovery operations. <p>d. For each recovery operation listed in Disclosures 306-4-b and 306-4-c, a breakdown of the total weight in metric tons of hazardous waste and of non-hazardous waste diverted from disposal:</p> <ul style="list-style-type: none"> i. onsite; ii. offsite. <p>e. Contextual information necessary to understand the data and how the data has been compiled.</p> <p>2.2 When compiling the information specified in Disclosure 306-4, the reporting organisation shall:</p> <ul style="list-style-type: none"> 2.2.1 exclude effluent, unless required by national legislation to be reported under total waste; 2.2.2 use 1000 kilograms as the measure for a metric ton.
	GRI (2020) 306-5**	Waste directed to disposal	<p>a. Total weight of waste directed to disposal in metric tons, and a breakdown of this total by composition of the waste.</p> <p>b. Total weight of hazardous waste directed to disposal in metric tons, and a breakdown of this total by the following disposal operations:</p> <ul style="list-style-type: none"> i. Incineration (with energy recovery); ii. Incineration (without energy recovery); iii. Landfilling; iv. Other disposal operations. <p>c. Total weight of non-hazardous waste directed to disposal in metric tons, and a breakdown of this total by the following disposal operations:</p> <ul style="list-style-type: none"> i. Incineration (with energy recovery); ii. Incineration (without energy recovery); iii. Landfilling; iv. Other disposal operations. <p>d. For each disposal operation listed in Disclosures 306-5-b and 306-5-c, a breakdown of the total weight in metric tons of hazardous waste and of non-hazardous waste directed to disposal:</p> <ul style="list-style-type: none"> i. onsite; ii. offsite. <p>e. Contextual information necessary to understand the data and how the data has been compiled</p> <p>2.4 When compiling the information specified in Disclosure 306-5, the reporting organisation shall:</p> <ul style="list-style-type: none"> 2.4.1 exclude effluent, unless required by national legislation to be reported under total waste; 2.4.2 use 1000 kilograms as the measure for a metric ton.

ESG Topics	GRI Topic-Specific Disclosure	"Shall" requirements under each disclosure	
Sustainable supply chain management	GRI (2016) 308-1**	New suppliers that were screened using environmental criteria	a. Percentage of new suppliers that were screened using environmental criteria
	GRI (2016) 414-1**	New suppliers that were screened using social criteria	a. Percentage of new suppliers that were screened using social criteria
Talent attraction and retention	GRI (2016) 401-1**	New employee hires and employee turnover	a. Total number and rate of new employee hires during the reporting period, by age group, gender and region. b. Total number and rate of employee turnover during the reporting period, by age group, gender and region.
Employee safety and well-being	GRI (2018) 403-9**	Work-related injuries	<p>a. For all employees:</p> <ul style="list-style-type: none"> i. The number and rate of fatalities as a result of work-related injury; ii. The number and rate of high-consequence work-related injuries (excluding fatalities); iii. The number and rate of recordable work-related injuries; iv. The main types of work-related injury; v. The number of hours worked. <p>e. Whether the rates have been calculated based on 200,000 or 1,000,000 hours worked.</p> <p>g. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumption used.</p> <p>2.1 When compiling the information specified in Disclosure 403-9, the reporting organisation shall:</p> <ul style="list-style-type: none"> 2.1.1 exclude fatalities in the calculation of the number and rate of high-consequence work-related injuries; 2.1.2 include fatalities as a result of work-related injury in the calculation of the number and rate of recordable work-related injuries; 2.1.3 include injuries as a result of commuting incidents only where the transport has been organised by the organisation; 2.1.4 calculate the rates based on either 200,000 or 1,000,000 hours worked, using the following formulas: <ul style="list-style-type: none"> • Rate of fatalities as a result of work-related injury = (Number of fatalities as a result of work-related injury / Number of hours worked) x [200,000 or 1,000,000] • Rate of high-consequence work-related injuries (excluding fatalities) = (Number of high-consequence work-related injuries (excluding fatalities) / Number of hours worked) x [200,000 or 1,000,000] • Rate of recordable work-related injuries = (Number of recordable work-related injuries / Number of hours worked) x [200,000 or 1,000,000]
	GRI (2018) 403-10**	Work-related ill health	<p>a. For all employees:</p> <ul style="list-style-type: none"> i. The number of fatalities as a result of work-related ill health; ii. The number of cases of recordable work-related ill health; iii. The main types of work-related ill health. <p>e. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumption used.</p> <p>2.3 When compiling the information specified in Disclosure 403-9, the reporting organisation shall include fatalities as a result of work-related ill health in the calculation of the number of cases of recordable work-related ill health.</p>
Talent development and future skills	GRI (2016) 404-1**	Average hours of training per year per employee	a. Average hours of training that the organisation's employees have undertaken during the reporting period, by: <ul style="list-style-type: none"> i. gender; ii. employee category.
Data privacy and cyber security	GRI (2016) 418-1**	Substantiated complaints concerning breaches of customer privacy and losses of customer data	<p>a. Total number of substantiated complaints received concerning breaches of customer privacy, categorised by:</p> <ul style="list-style-type: none"> i. complaints received from outside parties and substantiated by the organisation; ii. complaints from regulatory bodies. <p>b. Total number of identified leaks, thefts, or losses of customer data.</p> <p>c. If the organisation has not identified any substantiated complaints, a brief statement of this fact is sufficient.</p> <p>2.1 When compiling the information specified in Disclosure 418-1, the reporting organisation shall indicate if a substantial number of these breaches relate to events in preceding years.</p>

ESG Topics	GRI Topic-Specific Disclosure	"Shall" requirements under each disclosure
Ethical and fair business practice	GRI (2016) 419-1**	<p>Non-compliance with laws and regulations in the social and economic area</p> <p>a. Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area in terms of:</p> <ul style="list-style-type: none"> i. total monetary value of significant fines; ii. total number of non-monetary sanctions; iii. cases brought through dispute resolution mechanisms. <p>b. If the organisation has not identified any non-compliance with laws and/or regulations, a brief statement of this fact is sufficient.</p> <p>c. The context against which significant fines and non-monetary sanctions were incurred.</p>

Note: Singtel Group sustainability performance data includes sustainability data of Optus which is Singtel's subsidiary in Australia.

Reporting criteria

As a basis for the assurance engagement, we have used the criterion of "Accuracy" as defined by GRI and specific criteria determined by Singtel Group as being relevant for its sustainability performance. We consider these reporting criteria to be relevant and appropriate to review the Sustainability Report. Such Criteria were specifically designed for sustainability performance; as a result, the subject matter may not be suitable for another purpose.

Management's and Board of Directors' responsibility

The Management is responsible for the preparation of the Subject Matters in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards. The Board has ultimate responsibility for the company's sustainability reporting.

The Management is responsible for the collection and presentation of the information and for maintaining adequate records and internal controls that are designed to support the sustainability reporting process.

For the purpose of the Sustainability Report 2021, there are no legally prescribed requirements relating to the verification of sustainability reports.

Auditor's responsibility

Our responsibility is to express a conclusion on the presentation of the Subject Matters based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000') and the terms of reference for this engagement as agreed with Singtel Group on 1 April 2020. Those standards require that we plan and perform our engagement to obtain limited assurance about whether, in all material respects, the Subject Matter is presented in accordance with the Criteria, and to issue a report.

The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error. We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Our review was limited to the information on the select indicators set out within the Report from 1 April 2020 to 31 March 2021 and our responsibility does not include:

- Any work in respect of sustainability information published elsewhere in Singtel Group's annual report, website and other publications,
- Sustainability information prior to 1 April 2020 and subsequent to 31 March 2021, and
- Management's forward-looking statements such as targets, plans and intentions.

Auditor's Independence and Quality Control

We have complied with the independence and other ethical requirements of the Accounting and Corporate Regulatory Authority (ACRA) Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities (ACRA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies Singapore Standards on Quality Control 1 of the Institute of Singapore Chartered Accountants and, accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have the required competencies and experience to conduct this assurance engagement. Our professionals have both the required assurance skills and experience in the applicable Subject Matters including environmental, social and financial aspects.

Description of procedures performed

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. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Subject Matters and related information, and applying analytical and other appropriate procedures.

Our procedures included:

1. Inquiries with Singtel Group's Sustainability team to
 - a. Understand principal business operations,
 - b. Appreciate key sustainability issues and developments,
 - c. Map out information flow for sustainability reporting and the relevant controls,
 - d. Identify data providers with their responsibilities, and
 - e. Recognise the likelihood of possible manipulation of sustainability information and data
2. Virtual and face-to-face meetings with Singtel Group's data stakeholders and management.
3. Process walk-through of systems and processes for data aggregation and reporting, with relevant personnel to understand the quality of checks and control mechanisms, assessing and testing the controls in relation to the concerned Subject Matters in the Sustainability Report.
4. Interviews with employees and management based in Singapore (Group Sustainability, Group Procurement, Human Resources, Learning and Development, Energy Management, Facilities Management, Workplace Safety & Health, Group Cyber Resilience, , Regulations and Interconnect Strategy) and Australia (Group Sustainability, Human Resources, Learning and Development, Energy Management, Facilities Management, Workplace Safety & Health, Networks Supply Chain, Regulatory and Public Affairs, Rewards, Finance Shared Service) to understand key sustainability issues related to the select indicators and processes for the collection and accurate reporting of performance information.
5. Obtaining of documentation through sampling methods to verify assumptions, estimations and computations made by management in relation to the concerned Subject Matters in the Sustainability Report.
6. General media research on the concerned Subject Matters.
7. Checking that data and statements had been correctly transcribed from corporate systems and / or supporting evidence, into the Sustainability Report.
8. Obtaining of third-party reports and confirmations in relation to the concerned Subject Matters in the Sustainability Report.
9. Relying on Singtel Group's management representation letter on the concerned Subject Matters in the Sustainability Report.

Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the information related to the Subject Matters in the Sustainability Report of Singtel Group for the financial year ended 31 March 2021 has not been prepared, in all material respects, in accordance with the Reporting Criteria detailed above.

Restricted use

This report is intended solely for the information and use of the Management of Singtel Group and is not intended to be and should not be used by anyone other than those specified parties.



Ernst & Young LLP
Signed for Ernst & Young LLP by
Simon Yeo
Partner, Climate Change and Sustainability Services
Singapore
Singapore, 14 June 2021



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