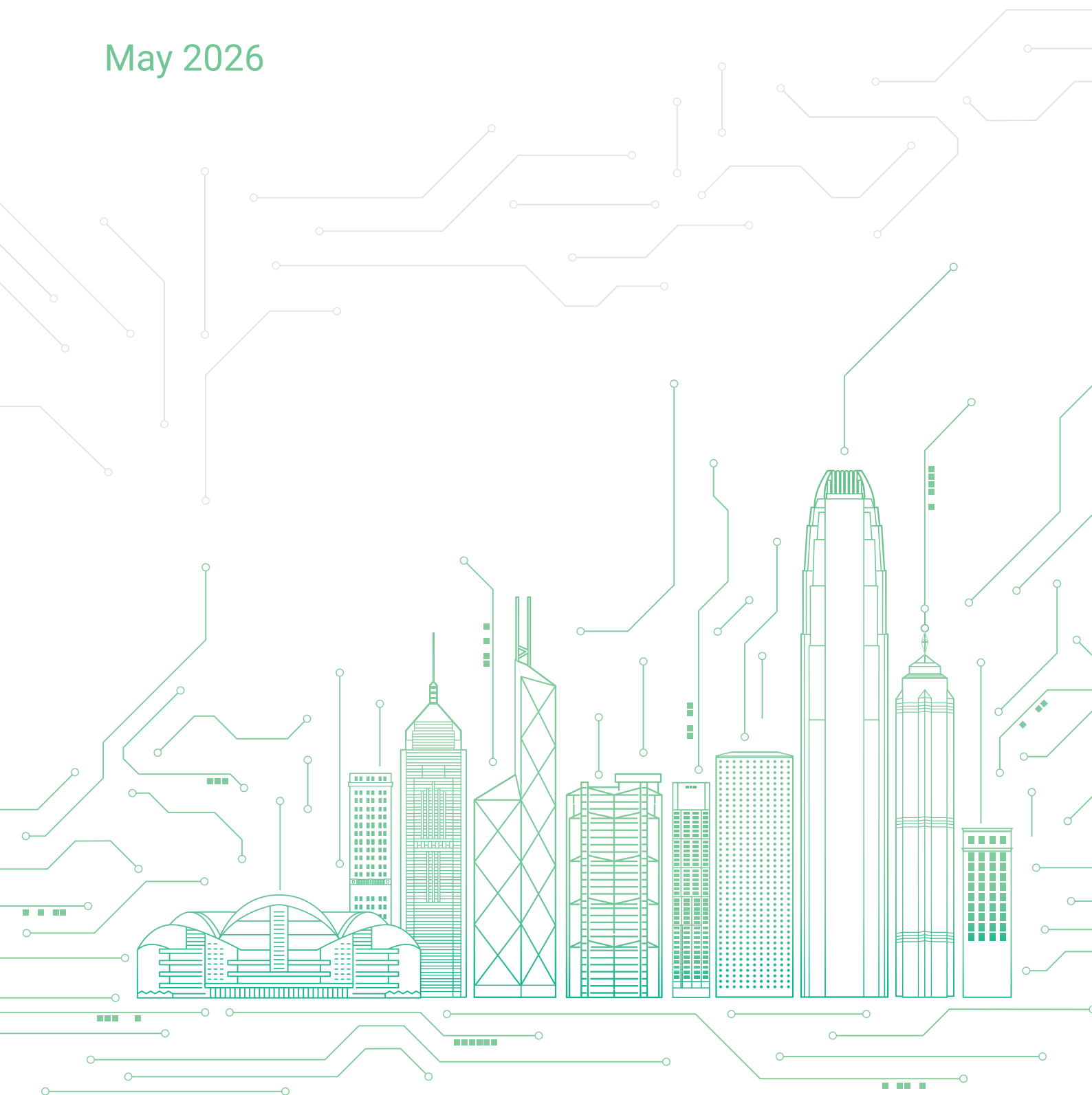


Mobilising Finance for the Transition of the Technology Sector

Transition Finance Operational Reference Guide – Phase 1 Report

May 2026



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Executive Summary

Meeting the climate ambition requires collective action, not only through green projects, but also the low-carbon transformation of corporates, especially those with material impact on the emission trajectory of the real economy. It is therefore essential for Hong Kong to leverage our strengths in sustainable finance to **scale transition finance and capture transition opportunities in the real economy**.

Transition finance is still at a nascent stage. The lack of agreed, sector-specific definitions and metrics, and the need to **localise and operationalise international principles and frameworks** are often cited as key barriers. In this context, the **Hong Kong Green and Sustainable Finance Cross-Agency Steering Group**¹ proposed the establishment of an industry working group (**Industry Working Group**) to **develop a practical guide to operationalise international frameworks and principles on transition finance** under a sectoral approach. This guide is intended to serve as a reference and does not seek to define transition activities or set out new requirements for transition planning or transition plan disclosures.

The Industry Working Group has identified the **Information and Communications Technology (ICT) sector** as the pilot sector for this project. The operational reference guide for the ICT sector will be released in phases. This **Phase 1 Report focuses on entity-level financing and investment**, and explores how financial institutions can support an entity's overall climate transition strategy through general purpose financing. In particular, it examines how financial institutions can **utilise sustainability-related information of an entity**, including disclosure of its transition plans, to understand and assess its transition strategy. Subsequent phases will explore activity-level financing and investments, as well as stewardship practices.

This Phase 1 Report examines how existing international guidance and frameworks on transition finance and transition plan disclosures can be **applied in practice in the ICT sector** in Hong Kong and in the broader Asia Pacific region.

Chapters 1 and 2 provide background and an overview of the current landscape for transition finance frameworks and guidance. **Chapter 3 forms the core of this report**. It draws out the **commonalities across different international frameworks** and identifies three dimensions that this Working Group agreed are most relevant for making financing and investment decisions:

- Governance, accountability and transparency;
- Delivery strategy; and
- Metrics and targets.

¹ *The Steering Group was established in May 2020 and co-chaired by the Hong Kong Monetary Authority (HKMA) and the Securities and Futures Commission (SFC). Members include the Financial Services and the Treasury Bureau, the Environment and Ecology Bureau, the Insurance Authority, the Mandatory Provident Fund Schemes Authority, the Accounting and Financial Reporting Council, and Hong Kong Exchanges and Clearing Limited. The Steering Group aims to coordinate the management of climate and environmental risks to the financial sector, accelerate the growth of green and sustainable finance in Hong Kong and support the Government's climate strategies.*

Executive Summary

The chapter highlights that, for **general-purpose corporate financing**, financial institutions tend to seek **a core set of entity-level metrics and information** that is broadly consistent across multiple international frameworks². These metrics, which are already disclosed by many leading companies, are further detailed in Chart 2 of Chapter 3. This table shows how these **metrics are common across frameworks** and how participating ICT companies disclose them in their ESG reports. The chapter also identifies sector-specific metrics financial institutions consider particularly material to the ICT sector.

Building on this overview, **Chapter 4** illustrates that while the overall objective of decarbonisation is shared, companies may take **different approaches in implementation** depending on their business models, value chains and operating contexts.

The report concludes with **three case studies** that illustrate how ICT companies in Asia translate international principles to practice:

- **Alibaba Cloud:** developing and articulating a clear and substantiated strategy for the sustainable expansion of data centres;
- **Lenovo:** developing and implementing a pragmatic and systematic plan to reach net-zero targets across the value chain by influencing and supporting decarbonisation efforts of suppliers; and
- **Tencent:** setting evidence-based climate targets and tracking tangible progress, signalling strong enterprise-wide climate commitment.

² Refer to Chapter 3 for the list of metrics and to Appendix II for the detailed mapping of international frameworks.

About the Industry Working Group

The Hong Kong Green and Sustainable Finance Cross-Agency Steering Group proposed the establishment of the Industry Working Group to develop the project in three phases. The Industry Working Group include (in alphabetical order of organisations' names):

Members

AIA
Asia Investor Group on Climate Change
Alibaba
Ant International
Barclays
Bloomberg
BNP Paribas
Bank of China (Hong Kong)
Credit Agricole
Fidelity International
FWD
Hong Kong Green Finance Association
HSBC
KPMG
Mizuho
Standard Chartered

Knowledge Partner

Glasgow Financial Alliance for Net Zero (GFANZ)³

³ This report should not be construed as representing the individual views of GFANZ, the GFANZ Secretariat, or any specific firm.

Chapter 1: Why the Information and Communications Technology Sector

The ICT sector broadly encompasses communication infrastructure, manufacturing, services, and applications⁴.

In this digital age, technology plays an integral and transformational role in business operations. Businesses adopt technology for various reasons, ranging from enhancing efficiency to reducing costs to providing scale, and in the pursuit, they consistently seek enhanced or new hardware equipment and software applications. At the same time, many businesses have climate targets and therefore the carbon footprint associated with technological products and services affects procurement decisions. The ICT sector has great potential to **enable and propel the climate transition of the real economy**. Solutions provided by ICT companies not only form a material part of the supply chain of businesses but contribute to the efficiency gains of energy and resources.

While the ICT sector is not commonly considered a hard-to-abate sector, it has close linkages to carbon-intensive sectors such as the energy and infrastructure sectors. The rapid adoption of AI, particularly generative AI, has increased demand for computing capacity and accelerated the scaling of data centres.

Beyond raising overall energy demand, this trend may **affect the pace and trajectory of energy transition** pathways if not managed alongside decarbonisation efforts. It is estimated that over the next decade to 2035, the global power demand for data centres alone would quadruple and represent 4.4% of global electricity⁵, and an additional 362 gigawatts of power generation capacity would be required⁶.

Due to this surge in power demand, fossil fuels have become particularly important in the near term — 44% of power plant capacity and 64% of incremental power generation could come from fossil fuels over the next decade⁷. Essentially, **the ICT sector could negatively impact the energy sector's decarbonisation pathway**. Capital providers, policymakers and other stakeholders are therefore paying close attention to the near-term and strategic longer-term investments of the ICT sector.

The ICT sector has garnered considerable investor interest in Hong Kong, with the recent listings of several notable ICT companies on the HKEX, in view of the Chinese Mainland government's policy support for innovation in advanced technology. Investors have a growing need to understand the alignment of their ICT investment with their sustainability strategies and goals, with some firms incorporating such discussions into their stewardship practices⁸. It is therefore timely to look into whether ICT companies are decarbonising while supporting the real economy transition from capital providers' perspectives.

⁴ For the purpose of this report, the ICT sector includes the sub-sectors of telecommunications, software and information technology services, data processing and hosting, and computing infrastructure, taking account of the classification under the Standard Industrial Classification Version 2.0, the International Standard Industrial Classification of All Economic Activities (ISIC), and the Sustainable Industry Classification System (SICS).

⁵ BloombergNEF. (2025). *AI Data Centres Fuel Quicker Growth In Power Demand*.

⁶ BloombergNEF. (2025). *Global Data Center Power Demand Outlook, 2025*.

⁷ BloombergNEF. (2025). *Global Data Center Power Demand Outlook, 2025*.

⁸ HSBC Asset Management. (2026). [2026 Stewardship Plan](#).

Chapter 2:

Overview of prevailing international frameworks on transition finance and transition plan disclosure

As the importance of transition finance gains increasing recognition, intergovernmental organisations, industry associations, and standard setters have issued several high-level frameworks and principles on transition finance⁹. The Industry Working Group has reviewed¹⁰ the mapping of **13 prominent frameworks¹¹ and identified a set of sector-agnostic, common key areas which are recommended for entity-level financing and investment decisions:**

1. **Governance, accountability and transparency:** whether there is internal governance over the transition strategy, and disclosure that enables external stakeholders to assess accountability and credibility; and
2. **Delivery strategy:** whether clear objectives and priorities are set, and whether a comprehensive implementation plan is devised; and
3. **Metrics and targets:** whether emissions targets are science-based, aligned with national or sectoral pathways, and whether interim targets and performance metrics, including those that are operational and financial, have been identified and tracked.

Financial institutions may utilise sustainability disclosures by corporates, especially the transition plan disclosures, to better understand their performance in these key areas. They may also refer to transition plan disclosure guidance and principles, as well as ICT-specific frameworks, to evaluate the validity and robustness of transition plans of ICT companies.

Sustainability-related disclosures

Market participants make sustainability-related disclosures with reference to various frameworks and standards. Notably, there is strong support for the inaugural IFRS Sustainability Disclosure Standards published by the International Sustainability Standards Board in 2023, which aim at establishing a global baseline for corporate sustainability-related disclosures. These standards comprise IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures. In particular, IFRS S2 requires an entity to provide information of its climate-related transition which relates to how one mitigates and adapts to climate-related transition and physical risks.

⁹ For the purpose of the first phase report, the Working Group has reviewed the literature available by end June 2025. The Climate Transition Bond Guidelines published by the International Capital Market Association in November 2025 and Transition Loans Guide published by the Loan Market Association, the Asia Pacific Loan Market Association and Advancing the Corporate Loan Market in October 2025 will be reviewed in the second phase report.

¹⁰ The Working Group would like to thank KPMG for contributing to Chapter 2.

¹¹ CBI. (2023). [Transition Finance Mapping: Frameworks to assess corporate transition](#). The 13 frameworks are from GFANZ, ICMA, IIGCC, SMI, ACT, CDP, CA100, CBI, SBTi, TPI, ESRS, G20, and TPT.

Chapter 2: Overview of prevailing international frameworks on transition finance and transition plan disclosure

Globally, 36 jurisdictions have adopted or otherwise used these standards or are in the process of finalising steps towards introducing them into regulatory frameworks.¹²

Hong Kong has a target of fully adopting IFRS S1 and S2¹³. As a first step, all Main Board issuers¹⁴ have been required to make climate-related disclosures modelled on IFRS S2 starting 1 January 2025¹⁵, which includes disclosure of any climate-related transition plan available.

Transition plan frameworks

There are multiple international initiatives that provide guidance to financial institutions on assessing the credibility of transition plans disclosed by companies.

Notably, the Glasgow Financial Alliance for Net Zero (GFANZ)¹⁶ issued two critical documents to address this need. Expectations for Real-Economy Transition Plans outlines the key components financial institutions require from companies to inform their capital allocation decisions,¹⁷ while Guidance on Use of Sectoral Pathways for Financial Institutions provides a framework for financial institutions to align their strategies with sector-specific decarbonisation pathways.¹⁸ Both documents emphasise the importance of a clearly defined scope, credible assumptions, and the overall credibility of transition plans.

Drawing on GFANZ's framework, the Transition Plan Taskforce (TPT) provides further actionable guidance for corporates, with the TPT Disclosure Framework highlighting best practices for transition plan disclosures, focusing on ambition, action, and accountability.¹⁹ These documents assist financial institutions in assessing the quality of transition plans of corporates. Building on the TPT's materials, the IFRS Foundation published a guidance document in June 2025 focusing on disclosures of entities' climate-related transitions.²⁰

12 IFRS Foundation. (2025). *IFRS Foundation publishes jurisdictional profiles providing transparency and evidencing progress towards adoption of ISSB Standards.*

13 HKSAR. (2024). [Roadmap on Sustainability Disclosure in Hong Kong.](#)

14 Issuers listed on the Main Board of the Stock Exchange of Hong Kong.

15 HKEX. (2024). [Exchange Publishes Conclusions on Climate Disclosure Requirements.](#)

16 A private-sector led initiative whose members included some of the largest financial institutions globally.

17 GFANZ. (2022). *Expectations for Real-Economy Transition Plans.*

18 GFANZ. (2022). *Guidance on Use of Sectoral Pathways for Financial Institutions.*

19 TPT. (2023). *TPT Disclosure Framework.*

20 IFRS Foundation. (2025). *Disclosing information about an entity's climate-related transition, including information about transition plans, in accordance with IFRS S2.*

Chapter 2: Overview of prevailing international frameworks on transition finance and transition plan disclosure

Frameworks specific to the ICT sector

To provide insights on the emission pathway specific for the ICT sector, the Science Based Targets initiative (SBTi) and the International Telecommunication Union (ITU) have developed Greenhouse Gas (GHG) Emissions Trajectories for the ICT Sector,²¹ which outline GHG emissions pathways for some sub-sectors like mobile networks, data centres, and user devices, to support IPCC's 1.5°C objective. In general, the ICT industry globally would need to reduce 45% of emissions from a 2020 baseline by 2030. It is worth noting that the trajectories developed by SBTi and ITU are geographically agnostic, and further effort is required for countries that wish to devise region-specific trajectories.

In terms of transition planning, the TPT Sector Summary²² delves deeper into specific decarbonisation strategies and metrics for 40 sectors, including Technology and Communications. The TPT Summary identifies recognised decarbonisation levers, governance requirements, stakeholder engagement practices, and both business/operational and GHG metrics and targets.

Regional criteria related to the ICT sector

In the absence of global transition criteria for the ICT sector, regional taxonomies could provide useful technical criteria for evaluating an economic activity in the ICT sector in the regional context. In Europe, the EU Taxonomy for Sustainable Activities published in 2020 recognises the high energy consumption of ICT operations.²³ It outlines sustainability goals and sets specific thresholds for energy efficiency, such as power usage effectiveness (PUE) for data centres, requiring efficient cooling systems and energy management practices. It also recognises ICT solutions that enable substantial contributions to environmental objectives in non-ICT sectors.

In Hong Kong, the Hong Kong Taxonomy for Sustainable Finance (Phase 2A) covers the ICT sector, with technical screening criteria for green and transition activities encompassing data processing, hosting and related services, as well as data driven solutions for reducing greenhouse gas emissions.²⁴ Besides technical criteria on energy usage, the Hong Kong Taxonomy also sets out criteria on water management in response to increasing water-related risks associated with data centres, as well as thresholds on global warming potential of refrigerants. In support of the local ecosystem, some technical criteria in the Hong Kong Taxonomy draw reference from the BEAM Plus New Data Centres (NDC) Version 1.0, a green building rating tool tailored for certifying the sustainability performance of data centres, also defines the best practice criteria for a range of sustainability issues across the whole lifecycle of a data centre.²⁵ Furthermore, in 2026, the Insurance Authority in Hong Kong launched a public consultation²⁶ on proposed amendments which include preferential capital treatment for investments in eligible infrastructure assets, such as communication utilities, amid wider efforts worldwide.²⁷ Analysis of the consultation feedback is ongoing.

²¹ Science Based Targets. (2020). *Guidance For ICT Companies Setting Science Based Targets*.

²² Transition Plan Taskforce. (2024). *Sector Summary*.

²³ European Commission. (2026). *EU taxonomy for sustainable activities*.

²⁴ Hong Kong Monetary Authority. (2026). *Hong Kong Taxonomy for Sustainable Finance (Phase 2A)*

²⁵ Hong Kong Green Building Council and BEAM Society Limited. (2021). *BEAM Plus New Data Centres (NDC) Version 1.0*.

²⁶ Insurance Authority. (2026). *Consultation Paper on Draft Insurance (Valuation and Capital) (Amendment) Rules 2026*.

²⁷ Examples include capital regime update by the International Association of Insurance Supervisors, the European Union (Solvency II), the Monetary Authority of Singapore.

Chapter 2: Overview of prevailing international frameworks on transition finance and transition plan disclosure

In Chinese Mainland, Action Plan for Green and Low-Carbon Development of the Information and Communication Industry²⁸ outlines expected action for the ICT industry to facilitate transitioning towards the national goal of carbon neutrality. Actions such as optimising the infrastructure architecture and improving the overall energy efficiency were suggested for the ICT industry in China.

In Asia, the Singapore-Asia Taxonomy for Sustainable Finance²⁹ also provides a set of technical screening criteria for economic activities in the ICT industry and classifies them into green, amber and ineligible activities, with attention to data centres. These activities include data processing, storage, transmission, and management, and GHG-related solutions and software.

With various frameworks and assessments in place, several environmental, social and governance (ESG) data providers and benchmarking platforms have introduced specialised tools and solutions to help market participants monitor corporates' progress, evaluate risk and attract transition finance. A non-exhaustive list of examples is included in [Appendix I](#).

Together, these resources provide a structured approach for corporates to craft credible transition plans and for financial institutions to assess them effectively, fostering a stronger alignment with global net-zero goals.

²⁸ Ministry of Industry and Information Technology of the People's Republic of China. (2022). *Action Plan for Green and Low-Carbon Development of the Information and Communication Industry*.

²⁹ Monetary Authority of Singapore. (2023). *Singapore-Asia Taxonomy for Sustainable Finance*.

Chapter 3:

Material information and metrics for the ICT sector

Chapter 2 has identified commonalities in various international guidance and frameworks on transition finance and further reviewed sustainability-related disclosure guidance as well as sector-specific frameworks and criteria that could inform financiers and investors in assessing the transition plan of ICT companies.

This chapter provides further observations and insights derived from the aforementioned literature and prevailing practices of members of the Industry Working Group. Analysis by the Industry Working Group concluded that the following lists of **qualitative and quantitative information and metrics could be material** to financial institutions when evaluating transition of companies in the ICT sector.

Information marked with an asterisk (*) is considered particularly critical to the ICT sector (see a summary in Chart 1), while the rest is information commonly considered important across sectors. Chart 2 provides a map of these sector-agnostic information with references to disclosures by participating ICT companies. A detailed mapping is also available in [Appendix II](#).

Financial institutions generally conduct a holistic assessment of factors when making lending and investment decisions. The lists in Chapter 3 serve as a reference for financial institutions when considering **corporate general-purpose financing or investing** in the ICT sector that supports the entity's overall climate transition strategy. Financial institutions should also take into account their individual circumstances, exercise appropriate judgement and consider all other relevant factors. The information below is by no means an exhaustive list, and disclosing all or parts of the information will not guarantee any investments or loans.

The lists below set out categories of **qualitative information** considered material to financiers and investors when evaluating the entity-level transition.



1. Governance, Accountability and Transparency

Governance

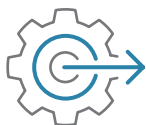
- Climate change oversight
- Linkage of executive remuneration to climate
- Actions to assess, maintain and build internal capacity
- External verification of climate-related disclosures

Policies supporting implementation strategy

- Climate change policy
- GHG emissions reduction policy
- Energy efficiency policy
- Transition plan

In general, the disclosure of definitions of green, transition, and relevant references to international frameworks is considered helpful.

Chapter 3: Material information and metrics for the ICT sector



2. Delivery Strategy

Taking action: implementation and risk management strategies

Sector agnostic:

- Climate scenario analysis
- Identification and discussion of climate change risks and opportunities
- Climate integration into business
- Internal carbon price
- Use of low carbon products and services

In general, the disclosure of dependencies and assumptions used, sensitivity of strategies to changes in key assumptions, and dependencies on external factors, is considered helpful.

ICT sector specific:

- Data centre development and operation*
- Systemic risk management from technology disruptions*
- Ability to improve the emissions profiles of other sectors (e.g. increasing energy efficiency, reducing GHG emissions, or maximising product use)*

To explore examples in practice, please refer to Alibaba's [ESG Report 2025](#) (page 41-42), Lenovo's [ESG Report 2025](#) (page 74-75) and Tencent's [ESG Report 2025](#) (page 45).

Engagement strategy

- Engagement with policymakers on responses to climate change
- Engagement with industry associations / initiatives / value chain

Chapter 3: Material information and metrics for the ICT sector

The list below sets out quantitative metrics material to financiers and investors for evaluation and monitoring purposes.



3. Metrics and Targets

Sector agnostic:

- Scope 1 GHG emissions reduction targets
- Scope 2 GHG emissions reduction targets
- Scope 3 GHG emissions reduction targets
- Net-zero target
- SBTi validated target
- Interim target
- Use of carbon credits and other environmental attribute certificates
- Green revenue ratio
- Green capital expenditure ratio
- Green operational expenditure ratio
- Investment in climate solutions
- Financed green revenues
- Financed green capital expenditure
- Outstanding green debt against total debt ratio

In addition to historical performance, the disclosure of forward-looking forecasts together with dependencies and assumptions used is also considered helpful, given the fast-evolving nature of the ICT sector.

ICT sector specific:

- Total energy consumption*
- Power usage effectiveness*
- Carbon usage effectiveness*
- Water usage effectiveness*
- Total water withdrawal*
- Waste recycled*
- Percentage of products manufactured or sold with a circular design*

To explore examples in practice, please refer to [Alibaba's ESG Report 2025](#) (page 112-113), [Lenovo's ESG Report 2025](#) (page 102, 105 and 106) and [Tencent's ESG Report 2025](#) (page 93).

Chapter 3: Material information and metrics for the ICT sector

Chart 1 Overview of sector-specific transition plan-related metrics suggested by working group members

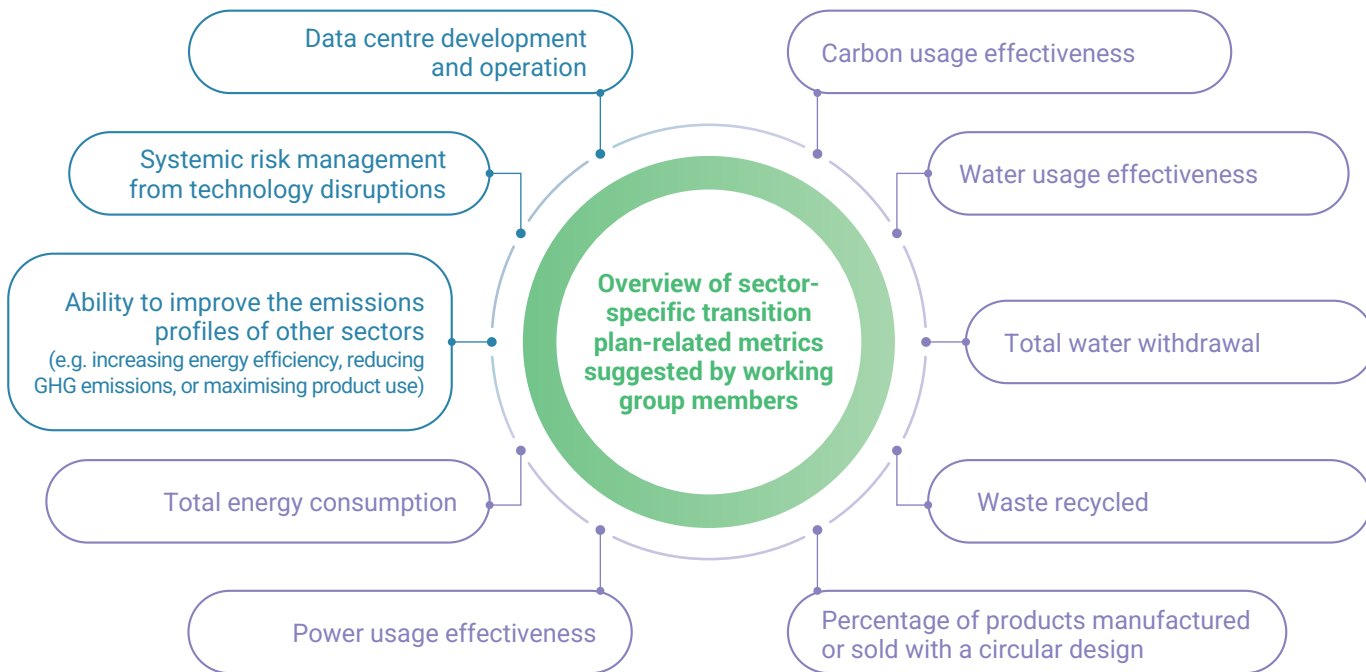


Chart 2 Overview of information commonly considered key across sectors, with mapping to selected frameworks used by members of the Industry Working Group

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology	Disclosure examples from selected ICT companies		
						Alibaba	Lenovo	Tencent
Governance, Accountability and Transparency								
Governance								
Climate change oversight	Y	Y	Y	Y	Y	ESG Report Sections: Climate governance; ESG training and advocacy; Appendix 2 – ESG Data Verification Statement	ESG Report Sections: ESG governance; Employment and talent management practices; Environmental management system (EMS)	ESG Report Sections: ESG Governance Structure; Climate Change and Carbon Neutrality; Annual Review of ESG Working Group; Assurance and Verification
Linkages of executive remuneration to climate	Y	Y	Y	Y	Y			
Actions to assess, maintain and build internal capacity	Y	Y	Y	Y	Y			
External verification of climate-related disclosures	N	Y	Y	N	N			

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology	Disclosure examples from selected ICT companies		
						Alibaba	Lenovo	Tencent
Policies supporting implementation strategy								
Climate change policy	Y	Y	Y	Y	Y	Website: ESG Policies	Website: Climate and Energy Policy and Transition Plan	Website: Environmental Management Policy
GHG emissions reduction policy	Y	Y	Y	Y	Y			
Energy efficiency policy	Y	Y	Y	N	Y			
Transition plan	Y	Y	Y	Y	Y			
Delivery Strategy								
Taking action: implementation and risk management strategies								
Climate scenario analysis	Y	Y	Y	Y	Y	ESG Report Sections: Responding to climate change; Promoting carbon neutrality	ESG Report Sections: Climate change; Supplemental climate-related disclosures; Environmentally conscious products; Innovation; Supply chain ESG practices	ESG Report Sections: Environmental Strategy and Progress; Climate Change and Carbon Neutrality; Climate- and Nature-related Information
Identification and discussion of climate change risks and opportunities	Y	Y	Y	Y	Y			
Climate integration into business	Y	N	Y	Y	Y			
Internal carbon pricing	N	Y	N	N	Y			
Use of low carbon products and services	Y	Y	N	Y	Y			

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology	Disclosure examples from selected ICT companies		
						Alibaba	Lenovo	Tencent
Engagement strategy								
Engagement with policymakers on responses to climate change	Y	Y	Y	Y	Y	ESG Report Section: Appendix 4 Stakeholder Engagement and Materiality Assessment	ESG Report Section: Stakeholder engagement,	ESG Report Section: ESG Materiality Assessment
Engagement with industry associations/initiatives/value chain	Y	Y	Y	Y	Y			
Metrics and Targets								
Metrics and targets (emissions)								
Scope 1 emission reduction target	Y	Y	Y	Y	Y	ESG Report Section: Goals and progress	ESG Report Section: Climate change	ESG Report Section: Environmental Strategy and Progress
Scope 2 emission reduction target	Y	Y	Y	Y	Y			
Scope 3 emission reduction target	Y	Y	N	Y	Y			
Net-zero target	Y	Y	Y	Y	Y			
SBTi validated target	Y	Y	Y	N	Y			
Interim target	Y	Y	Y	Y	Y			
Use of carbon credits and other environmental attribute certificates	Y	N	N	Y	Y			

Chapter 3: Material information and metrics for the ICT sector

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology	Disclosure examples from selected ICT companies		
						Alibaba	Lenovo	Tencent
Metrics and targets (financials)								
Green revenue ratio	Y	Y	Y	Y	N	<p>While these metrics are currently not widely being disclosed, they are regarded as useful to financiers and investors.</p> <p>In the subsequent phases of this project, the Industry Working Group will examine the challenges faced by corporates in tracking and disclosing such information.</p>		
Green capital expenditure ratio	Y	Y	Y	Y	Y			
Green operational expenditure ratio	Y	Y	Y	N	Y			
Investment in climate solutions	Y	N	Y	Y	Y			
Financed green revenues	Y	Y	Y	Y	N			
Financed green capital expenditure	Y	N	Y	Y	N			
Outstanding green debt against total debt ratio	Y	Y	N	N	N			

Note: See Appendix II for the detailed mapping.

Chapter 4: Case Studies

Based on the findings in Chapter 3, members of the Industry Working Group have engaged with the ICT sector to understand their practical experiences³⁰.

It is noted that leading companies have demonstrated a level of preparedness and willingness to disclose the material information and key metrics set out in Chapter 3. However, a number of recurring challenges have been observed in both the data collection and evaluation stages. These challenges are not only technical in nature, but also strategic, reflecting the **complexity of aligning business growth with long-term sustainability goals**.

This chapter presents three case studies that discuss these challenges and illustrate the different approaches companies have taken to address them. Through the experiences and evidence from **real-world implementation**, these case studies aim to provide insights for financial institutions and corporates facing similar challenges, and to inspire innovative solutions.

Alibaba Cloud: reconciling the growing demand for data processing capacity with sustainability objectives and strategies.

Lenovo: executing climate transition plans that can both reduce Scope 3 emissions and build operational resilience, despite the sector's complex and geographically dispersed supply chains.

Tencent: leveraging evidence-based targets and strength in governance to build credibility in plans and tracking mechanism to translate commitment into execution.

³⁰ The Working Group would like to thank AIA, Alibaba Cloud, BNP Paribas, Fidelity International, Lenovo, Mizuho and Tencent for contributing the case studies.

Chapter 4: Case Studies – Alibaba Cloud

Alibaba Cloud: Data Centre Sustainability Playbook

While data centres play a critical role in facilitating the digital economy and connectivity, they are highly energy-intensive, requiring substantial electricity to power servers and maintain optimal temperatures. The data centre buildup presents a major investment opportunity. However, it also introduces significant sustainability risks. One of the greatest challenges of our times is how to make the rapid expansion of data centres environmentally sustainable while meeting the computing demand.

The case study examines how this challenge can be turned into an opportunity. Alibaba has integrated energy, water and finance management into a coherent strategy that both delivers commercial values and achieves decarbonisation targets. The strategy and its implementation are well articulated in Alibaba’s external communication, allowing the company to attract enterprise customers and investors with ambitious climate commitments.

Central Role of Data Centre in Alibaba’s Business

Founded in 1999, Alibaba is a Chinese technology conglomerate focusing on two core businesses — Consumption and AI + Cloud. Alibaba operates both self-built and leased data centres, which are critical enablers of the company’s business.

In Q3 FY2025, Cloud Intelligence Group’s revenue was up 36% with AI-related product revenue delivering triple-digit growth for the tenth consecutive quarter.³¹ In February 2025, Alibaba announced plans to invest CN¥380 billion (US\$52 billion using 28 Feb 2025 exchange rate) in AI and cloud infrastructure over the next 3 years, highlighting the importance of data centres to Alibaba’s long-term financial performance.

From the perspective of a prospective investor in Alibaba, sustainable development of data centres has the potential to: 1) significantly cut energy and water expenses, facilitating lower prices for Alibaba’s customers or a higher profit margin for Alibaba; 2) help mitigate regulatory or associated risks by aligning with China’s PUE target of below 1.5³² and the government’s goal of achieving 80% green power usage in newly built data centres³³; 3) appeal to clients with net-zero commitments who care about value chain emissions; and 4) help bolster the company’s sustainability profile and potentially unlock access to sustainable financing options that could result in more favourable funding.

Alibaba’s overall sustainability strategy and approach to sustainable development of data centres provide valuable insights for other participants in the ICT sector.

Alibaba’s Sustainability Targets

Since establishing ESG as a cornerstone strategy at a group level in 2021, Alibaba has continued to evolve its ESG targets and governance.

The group has set ambitious decarbonisation targets, including achieving carbon neutrality for Scope 1 and 2 emissions by 2030, reducing Scope 3 emission intensity by 50% against a 2020 baseline, and enabling 15 billion tonnes of CO₂ emissions reductions between 2021 and 2035. These commitments are embedded in the KPIs of major business units to ensure accountability and progress.

³¹ Alibaba. (2026). [Announcement of the December Quarter 2025 Results](#)

³² National Development and Reform Commission of the People’s Republic of China. (2024). [Special Action Plan for Green and Low-Carbon Development of Data Centers](#).

³³ National Development and Reform Commission of the People’s Republic of China. (2025). [Opinions on Promoting the High-Quality Development of the Renewable Energy Green Electricity Certificate \(GEC\) Market](#)

Chapter 4: Case Studies – Alibaba Cloud

Reconciling Business Strategy with Sustainability Goals

Scaling up Clean Energy Adoption

To address investor and shareholder interest in data centre development and operation, given its importance to the business, Alibaba Cloud has established its own goal of achieving 100% clean energy for both self-built and leased data centres by 2030. Beyond managing its own facilities, the company is tightening requirements for leased data centres, underscoring its commitment to meeting these targets.

Alibaba's clean energy strategy is built on a three-pronged approach: distributed photovoltaic deployments, market-based clean electricity trading, and long-term power purchase agreements. Beyond clean energy deployment and procurement, the company has invested in building in-house expertise to navigate China's evolving electricity markets. It conducts research into the provincial electricity market policies and trading rules, and has built a technical platform to support the bidding and settlement of green power transactions. This combination of operational execution and institutional capacity building has enabled Alibaba to steadily increase the share of clean electricity in its total electricity consumption, securing 64% clean electricity for its self-built data centres in FY2025.

Energy Efficiency Champion

Alibaba has regularly reported its PUE in its ESG reports since 2022, with energy and GHG emissions high in its annual double materiality assessment. Its consistently low PUE is attributable to both strategic location planning and technological innovation for its self-built data centres. At Alibaba, location planning goes beyond business considerations; local climate is factored in to reduce cooling loads from the outset. On the technology front, two innovations stand out. First, liquid cooling systems, which are 10 to 25 times more thermally conductive than air, enable more efficient heat dissipation and reduce energy demand for cooling. Second, its proprietary "Panama" high-performance power supply solution allows direct conversion from medium voltage to low voltage, eliminating the need for traditional energy conversion equipment and thus improving both energy efficiency and reliability. Alibaba's strategy demonstrates that location planning and technological innovation are the key to superior energy performance in its self-built data centres.

Beyond its self-built data centres, Alibaba also supports its leased data centre suppliers to reduce their PUE. For instance, as stipulated in contracts signed with its suppliers, Alibaba would share a portion of the cost with the suppliers that have achieved outstanding energy efficiency improvement, incentivising the suppliers to invest in energy-saving measures.

Balancing Efficiency Metrics: PUE vs WUE

Rather than pursuing one single metric at all costs, Alibaba recognises the trade-offs between energy consumption and water consumption. To address this, it adapts its data centre designs to local water availability. In water-scarce regions, air-cooling is prioritised to minimise water use, even if this results in slightly higher PUE. In water-abundant regions, water-cooling is deployed to maximise energy efficiency. This region-specific approach has contributed to an average Water Usage Effectiveness (WUE) of 1.144 L/kWh across its self-built data centres in FY2025, with air-cooled sites achieving as low as 0.329 L/kWh. The key takeaway is that balancing PUE and WUE requires consideration of local water availability, which is often more constrained than power supply.

Chapter 4: Case Studies – Alibaba Cloud

Sustainability Facilitates Access to Capital

Having embedded ESG considerations into its business strategy, Alibaba has also extended this commitment into its fundraising strategy. A critical enabler is its governance structure. With the CFO chairing its Sustainability Steering Committee, Alibaba integrates sustainability priorities into financial decision-making.

This integration was most visible in 2021, when the company issued a US\$ 1 billion sustainability bond. Around half of the bond proceeds were allocated to the construction of energy-efficient data centres and the procurement of renewable energy, while the other half supported other sustainability initiatives such as green office construction, circular economy initiatives, and even COVID-19 crisis response. This transaction not only achieved a “greenium”³⁴, but also signalled to external stakeholders that Alibaba’s sustainability commitments were backed by tangible financial actions.

Looking ahead, Alibaba is keen to explore innovative sustainable financing solutions and sees value in deeper collaboration with the financial industry. More than a source of funding, investors and banks are well positioned to share insights into emerging climate technologies, evolving disclosure standards, and leading practices in transition planning. Strengthening this advisory dimension through banks would not only enhance Alibaba’s sustainability journey, but also help guide the sustainable development of the wider data centre industry.

Chart 3 Alibaba’s Sustainable Finance Transaction Track Record

Date	Instrument	Currency	Size (million)	Tenor (years)	External Reviewer	Use of Proceeds
Feb-2021	Sustainability bond	US\$	1,000	20	Sustainalytics	<ul style="list-style-type: none"> Energy efficiency: 45.7% Green buildings: 35.7% COVID-19 crisis response: 14.9% Renewable energy: 3.6% Circular economy & design: 0.1%

Alibaba’s experience demonstrates that sustainable data centre management is not a siloed operational issue, but an interdisciplinary orchestration related to engineering, finance, and governance. Low PUE, balanced WUE, high renewable adoption, and access to sustainable finance are not isolated achievements; they are the outcome of a coherent strategy. For practitioners in the data centre industry, this case offers a blueprint for developing the industry sustainably: collaboration between various business functions creates measurable sustainability outcomes, which in turn unlock access to capital and strengthen customer relationships.

34 “Greenium” is the price premium investors pay for green bonds over conventional bonds.

Chapter 4: Case Studies – Lenovo

Lenovo: Driving Decarbonisation across Value Chain

In the race to limit global warming to 1.5°C, supply chains represent the largest chunk and the untapped opportunity for corporate decarbonisation. This is especially true for technology giants like Lenovo³⁵, which has over 2,000 suppliers and over 30 manufacturing sites throughout its global supply chain, and produces products that power everything from remote work to AI data centres. In FY2024/2025, Lenovo's Scope 3 emissions, largely from upstream suppliers and downstream customer product use, accounted for >99% of its carbon footprint. As financial institutions look to fulfil climate mandates with aligned portfolios, Lenovo's supply chain management offers a blueprint.

The case study examines how the world's largest PC maker has developed a credible plan to reach net-zero targets across its value chain. The company has introduced various supply chain initiatives to influence suppliers and support their decarbonisation efforts, which not only reduce Lenovo's Scope 3 emissions but advance the net-zero ambition of the tech ecosystem.

Lenovo's Net-Zero Roadmap

Lenovo has responded to the urgent call for corporate climate action by committing to science-based emissions reduction targets and net-zero targets, which were validated by SBTi. Lenovo commits to reach net-zero GHG emissions across the value chain by FY 2049/50. Its Scope 1 and 2 emissions reduction targets are consistent with limiting warming to 1.5° C, the most ambitious goal of the Paris Agreement, and its Scope 3 emissions reduction targets meet ambitious criteria according to the SBTi's methodology, which means they are in line with current best practices. By FY2024/25, progress was on track across all metrics, with total Scope 3 emissions at 17.73³⁶ million MT CO₂e, showing steady per-unit intensity reduction³⁷.

³⁵ *Lenovo Group ("Lenovo" or the "Company") is a Hong Kong listed, Fortune Global 500 company that serves customers in more than 180 markets around the world. The Company designs, develops, manufactures and distributes a wide range of smart devices, infrastructure, solutions and services. The Company has over 30 global manufacturing sites and works with more than 2,000 suppliers and 30,000 channel partners throughout its supply chain. Lenovo has scored an 'A', Leadership Level, for climate change performance, water security, and supplier engagement assessment in the 2025 CDP questionnaire.*

³⁶ *Lenovo. (2025). FY2024/25 ESG Report, Environmental data — GHG Emissions*

³⁷ *Lenovo. (2025). FY2024/25 ESG Report, page 22*

Chapter 4: Case Studies – Lenovo

Chart 4 Lenovo’s carbon footprint – FY 2024/25³⁸

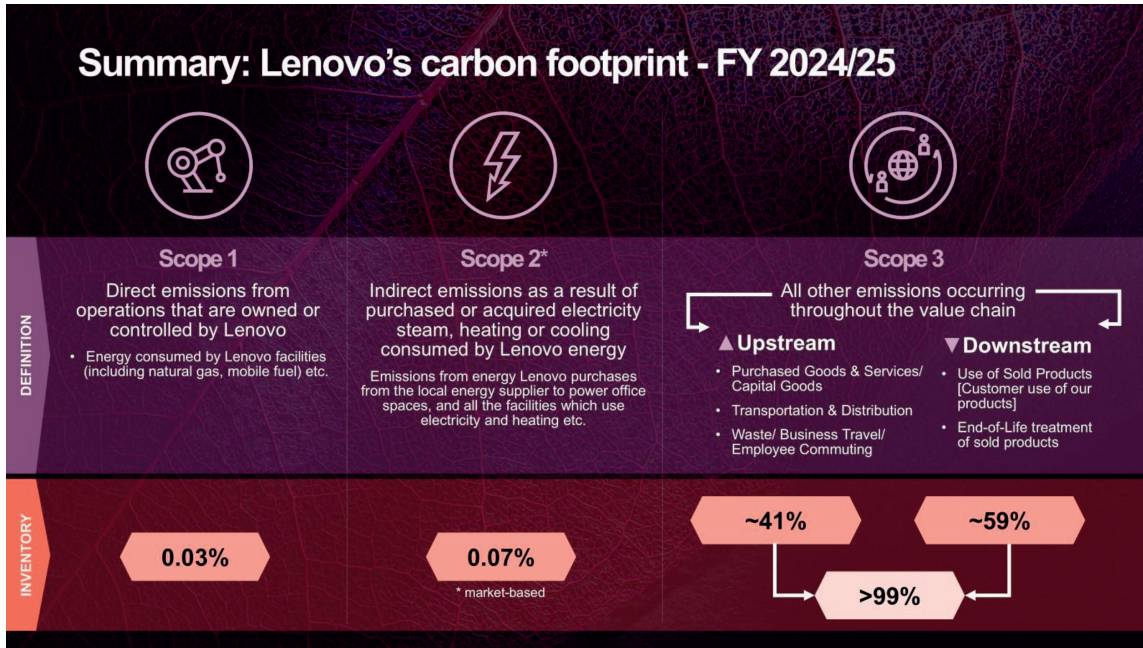
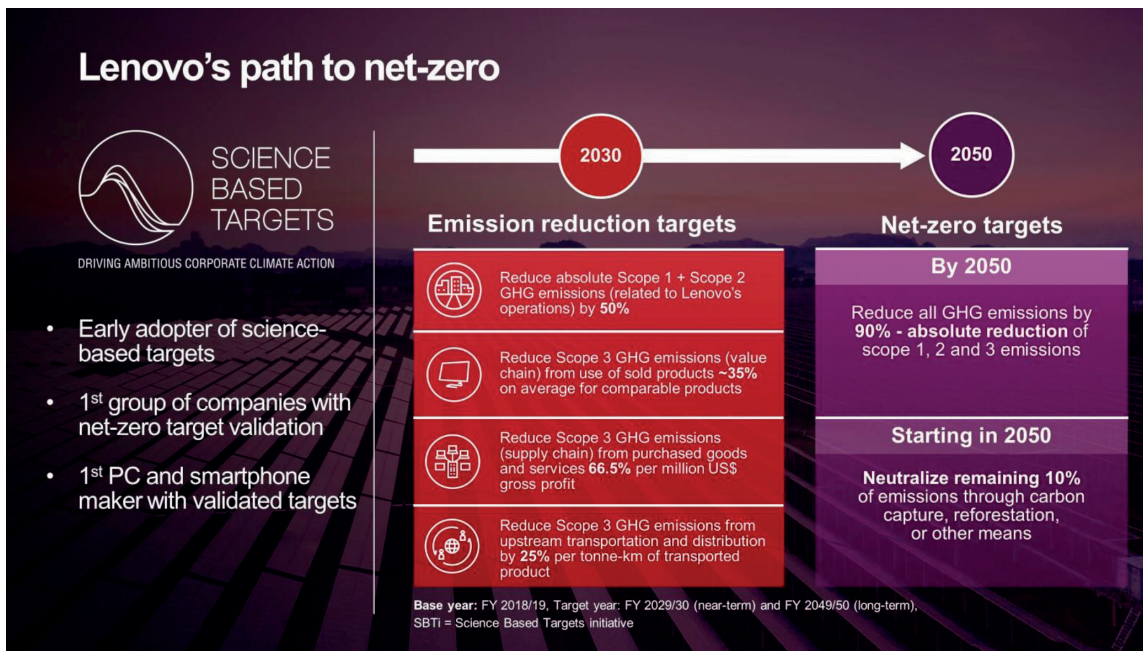


Chart 5 Lenovo’s path to net-zero³⁹



³⁸ Lenovo. (2025) Climate Transition Plan, page 4

³⁹ Lenovo. (2025) Climate Transition Plan, page 3

Chapter 4: Case Studies – Lenovo

Supply Chain Initiatives: From Commitment to Action

In addition to Lenovo's ESG-related contractual requirements and ESG-specific controls, management system and assessment of key suppliers, Lenovo has launched multiple initiatives to help the wider supply chain reduce emissions.

Supplier Emissions Reduction Programme

Launched in 2022, Lenovo's Supplier Emissions Reduction Programme⁴⁰ covers 98% of its total procurement spend. Through the programme, Lenovo asks suppliers to disclose emissions through CDP, develop inventories, define climate targets — ideally aligned with SBTi — and take actions to reduce emissions.

Recognising that suppliers are at different stages of developing climate strategy, Lenovo works with them through a tiered approach, prioritising support and collaboration based on suppliers' emissions management maturity levels, impact, and readiness to drive meaningful climate action across the supply chain.

In 2024, Lenovo's product supplier response rate to the CDP Climate Change questionnaire was 98%, ranking among the top 5% globally⁴¹. Around 70% of the participating suppliers reported Scope 3 data. To support the remaining 30%, Lenovo has introduced CDP training sessions, one-to-one engagements, and plans to offer additional resources going forward. The benefits of engagements are clear:

- 51% of suppliers (by spend) were committed to SBTi targets (FY2023/24: 42%),
- 96% of suppliers (by spend) have public GHG reduction goals,
- 72% of suppliers (by spend) have renewable energy targets, and
- 95% of suppliers (by spend) track and report renewable energy use.

Intelligent Sustainability Solutions Advisor

To support clients' understanding of their own estimated emissions impact across their IT lifecycle, Lenovo launched in 2024 the Lenovo Intelligent Sustainability Solutions Advisor (LISSA) solution. Using generative AI, the tool simulates multiple Lenovo-tested solution pathways to identify potential emissions reduction opportunities to support the customer's IT decarbonisation goals in the digital workplace.

Lenovo has also developed and tested innovative data management tools to monitor key ESG metrics in manufacturing and deliver near-real-time insights on greenhouse gas (GHG) emissions and energy use. The Lenovo ESG Navigator replaces traditional manual management of ESG metrics with a flexible, transparent, and highly automated approach that captures data across the value chain from a single point of control, enabling more data-informed decisions in areas impacting sustainability performance.

⁴⁰ [Lenovo StoryHub](#). (2025). *From commitment to action: Partnering across the supply chain to reach net-zero*

⁴¹ [CDP Insights](#). (2025). [Lenovo](#)

Chapter 4: Case Studies – Lenovo

Renewable Energy Purchase Pilot

A flagship collaboration is the 2024 renewable energy purchase pilot in Guangdong, home to many of Lenovo’s supplier factories and Lenovo’s South Smart Campus factory in Shenzhen. Through this pilot run, four suppliers already engaged in the Supplier Emissions Reduction Programme joined Lenovo in a group purchase of renewable electricity. The goal is to make clean energy more accessible and competitive by combining demand and building collective momentum for change.

Together, Lenovo and participating suppliers are expected to reduce an estimated 30,000 metric tons of emissions in 2025 — a significant step forward on their joint emissions reduction journey.

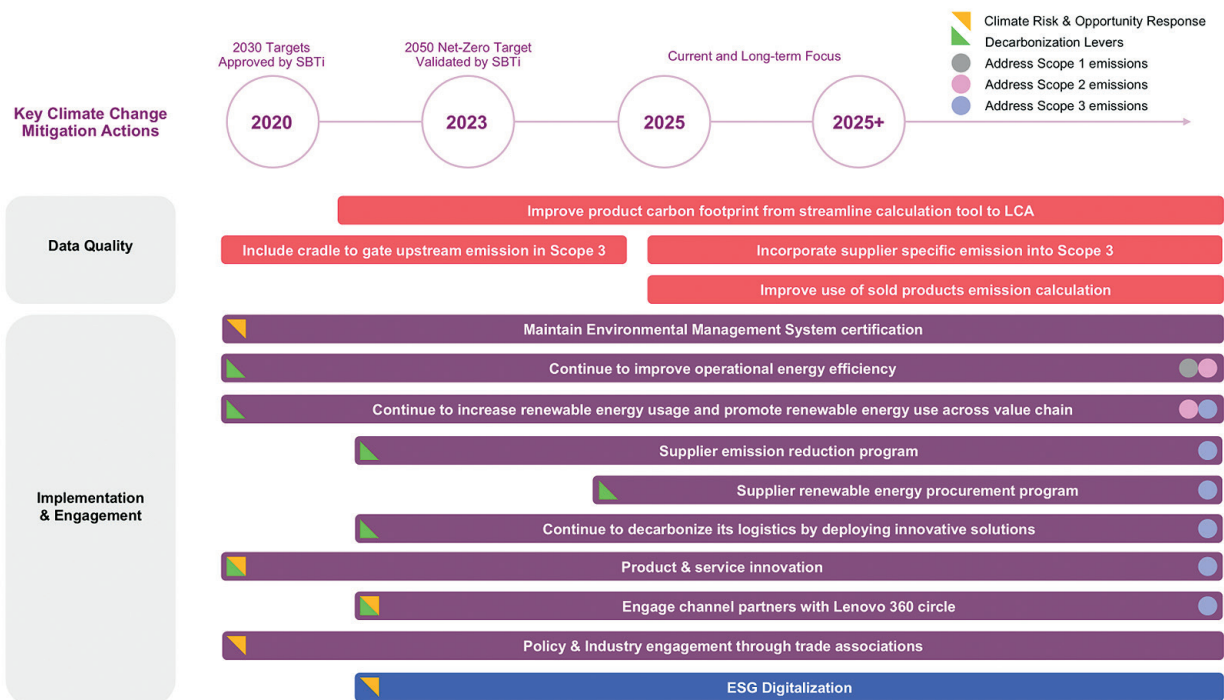
Financing for Supply Chain Decarbonisation

The company aligns its investments and funding — including the use of green bonds — with the decarbonisation efforts. Lenovo has also established a Green Finance Framework and issued a green bond to support eligible green projects.

Other Decarbonisation Levers

Other decarbonisation levers, including Lenovo’s own operations and the upstream and downstream value chain, are summarised in Chart 6. More details are available in the Implementation and Engagement section of the [Climate Transition Plan](#).

Chart 6 Lenovo’s decarbonisation levers in the full value chain⁴²



42 *Lenovo. (2025) Climate Transition Plan, page 5*

Chapter 4: Case Studies – Lenovo

Lenovo's complex and vast network adds layers of complexity — and with it, heightened decarbonisation challenges. Yet, Lenovo has turned these challenges into opportunities, making its supply chain emissions a catalyst for positive change. By investing in collaborative, data-driven strategies, Lenovo demonstrates that well-supported and coordinated actions by suppliers can lead to tangible progress in reaching Scope 3 targets. This serves as a powerful example of how clients, suppliers and financiers can work together to reduce emissions across the supply chain. Adopting such forward-thinking approaches, institutions in Hong Kong can accelerate the development of resilient, low-carbon supply networks in the rapidly growing ICT sector.

Chapter 4: Case studies – Tencent

Tencent: Setting and Tracking Credible Climate Targets

Companies often encounter difficulties when setting climate targets and identifying efficient ways to scope, measure, and report emissions and other climate-related metrics accurately. Without adherence to a science-based framework, companies struggle to provide investors with sufficient assurance that they are making tangible progress toward climate objectives.

This case study examines how Tencent, one of Asia’s largest technology companies, has set credible climate targets and tracked tangible progress, which provides a useful reference for investor assessment. It highlights how the company’s collaborative efforts with the wider ecosystem to enable climate transition send a strong signal to investors of its commitment. The case study also delves deep into the enabling factor of these good practices — executive-level commitment and oversight.

Tencent: A Digital Ecosystem with Global Impact

With a market capitalisation of roughly US\$ 566 billion (end March 2026) and services reaching more than one billion users globally, Tencent’s footprint across communication, cloud, and payments means decisions on energy sourcing, technology deployment, and supplier engagement can affect a wider network of counterparties connected to its platforms.

Develop Science-based Climate Targets

Tencent calibrated its climate targets through an enterprise-level process embedded within risk management. Climate-related risks are addressed through a structured sequence that begins with risk inventory identification, followed by scenario analysis of climate impacts, including assessment of risks and opportunities, and culminates in management responses. Target formulation drew on scenario studies, internal pilot projects, and stakeholder consultations. Pilot initiatives such as solar deployments in Qingyuan and hydropower collaborations in Chongqing were used to validate scalability and operational feasibility. The design of targets aligns with China’s “3060” goals (peak emissions by 2030; carbon neutrality by 2060) and with sector guidance under science-based frameworks.

Tencent has been the first Chinese ICT company to have near-term greenhouse-gas reduction targets validated by the SBTi under their ICT sector guidance⁴³. Headline goals include reducing absolute Scope 1 and Scope 2 emissions by 70% from a 2021 base year by 2030 and reducing absolute Scope 3 emissions on a trajectory consistent with the 1.5° C pathway. These commitments build on earlier targets set for achieving carbon neutrality across operations and supply chains by 2030.

Benchmarking against global tech peers provided insights into industry best practices, including 100% renewable energy commitments and net-zero supply chains. At the same time, Tencent also has to balance the needs of its rapid business growth, especially in cloud computing and data centres, driving the need to develop innovative solutions for Tencent’s decarbonisation efforts vis-à-vis meeting its rising energy demand.

43 SBTi validation date: 12 Dec 2024.

Chapter 4: Case studies – Tencent

Track Tangible Progress Towards Climate Targets

Tencent has taken concrete steps to translate commitment into implementation. For example, it has scaled up renewable-electricity procurement through power purchase agreements, piloted microgrid systems integrating solar, wind, and battery storage to enhance energy resilience and reduce transmission loss, and endorsed circular economy principles to optimise resource usage.

Chart 7 Tencent's scope 2 and 3 emission targets and measures

Targets	Measures
Scope 2	<p>Expand renewable electricity procurement through power purchase agreements and distributed generation, including data-centre integrations and microgrid systems combining solar, wind, and battery storage.</p> <p>Improve energy efficiency through modular data-centre designs and AI-driven optimisation of cooling and power management, with particular emphasis on GPU clusters used for AI workloads.</p>
Scope 3	<p>Embed supplier engagement in procurement and performance management.</p> <p>Set environmental standards, energy-efficiency expectations, and GHG-reduction requirements in The Supplier Code of Conduct, supported by certification, audits, and performance-linked purchasing criteria; non-compliance may lead to remedial actions, reduced orders, or contract termination.</p>

Tencent operates an internal Carbon Emissions Inventory Platform that aggregates data across global operations. Progress tracking and disclosure are mapped to recognised standards. As a HKEX listed company, Tencent abides by the HKEX ESG Reporting Code requirements and aligns reporting with other global frameworks, including IFRS S2, TCFD and ISO 14064-1:2018, and participates in initiatives such as CDP. The company's metrics and targets are mapped out in the appendix of their 2024 ESG Report. Disclosures are supported by independent third-party verification to enhance accuracy, comparability, and investor confidence in reported outcomes.

Tencent also conducts climate scenario analyses — including extreme heat, flooding, typhoon, water stress, and drought scenarios — enabling management to anticipate potential climate-related disruptions or policy shifts and adapt infrastructure accordingly, such as deploying waterless cooling systems in drought-prone regions.

Chapter 4: Case studies – Tencent

Create Network Effect

As one of Asia's most influential digital platforms, Tencent's ecosystem connects over a billion users, millions of businesses, and critical payment and cloud infrastructures. This scale creates a powerful network effect: Tencent's progress in decarbonisation — whether through renewable energy procurement, supply-chain engagement, or technology innovation — has the potential to cascade across industries that depend on its platforms.

Tencent has launched collaborative initiatives such as CarbonX and TanLIVE to help accelerate the adoption of low-carbon technologies, strengthen supply-chain resilience, and unlock new markets for sustainable innovation. Tencent has utilised internal funding for these initiatives. It has also sponsored innovative financial solutions to support the climate start-up industry.

For investors, these commitments and partnerships are signals of strategic prioritisation and can be catalytic when combined with third-party capital and sector expertise. They also create avenues for co-investment and structured-finance solutions tied to verified decarbonisation outcomes.

CarbonX Programme

CarbonX 1, launched in 2023, focused on carbon capture, utilisation, and storage (CCUS), funding 30 projects across areas such as direct air capture, mineralisation, and industrial applications, moving them from concept to proof-of-concept.

Building on this success, CarbonX 2 was introduced in late 2024 to broaden the scope beyond CCUS to include long-duration energy storage, steel industry decarbonisation, and carbon utilisation in manufacturing. CarbonX 2 also adopts a global perspective, seeking international collaborations to accelerate technology deployment. Partnerships remain critical to the programme's success, and attracting external funding will be essential for scaling these solutions with industry partners.

TanLIVE Programme

During COP28 in 2023, Tencent launched TanLIVE in collaboration with partners such as Masdar City, Catalyst, and Innovate for Climate Tech. The platform was designed as a digital public good to address critical gaps in the global climate innovation ecosystem, including fragmented resources, limited investor visibility into vetted projects, and collaboration barriers caused by silos between industries, academia, and governments. It provides AI-powered tools that support public welfare initiatives in areas such as environmental protection and sustainable development. Key features include an AI chatbot-building platform that enhances organisational knowledge bases and user engagement, and an automated solution that lowers the threshold for accessing professional expertise. These capabilities aim to improve information flow, reduce barriers to collaboration, and promote the dissemination and accessibility of low-carbon technologies worldwide.

Chapter 4: Case studies – Tencent

Executive-Level Commitment and Oversight

Executive-level commitment and oversight are key to enabling this good practice. Oversight of environmental risk management sits with Tencent's Board of Directors through a Corporate Governance Committee. Implementation is coordinated by an ESG Working Group co-chaired by the Chief Strategy Officer and Chief Financial Officer, with the Carbon Neutrality Joint Project Group, led by a Senior Vice President, providing cross-functional execution and access to external advisers in climate and energy. This structure connects enterprise risk management with capital allocation and operating decisions, and it provides a clear locus of accountability for target setting, disclosure, and performance monitoring.

On the environmental front, Tencent has integrated climate-related risks into its enterprise risk management system and assessment framework for identifying, assessing, managing, and monitoring material risks that could impact the business. The oversight framework links risk identification and scenario analysis to decision-making, with execution coordinated across strategy, finance, operations, and technology functions.

In short, Tencent's influence positions it as a catalyst for Asia's low-carbon future. Strategic capital deployment — paired with governance, transparency, and innovation — offers investors a chance not only to manage climate risk but to drive systemic change at scale.

Appendix I:

Non-exhaustive examples of transition finance solutions by ESG data providers

Commercial Tools	Description
Bloomberg Sustainable Finance Solutions	Bloomberg's Sustainable Finance Solutions provide a comprehensive ecosystem of data, research, and analytics designed to help financial professionals manage climate risk and identify transition opportunities. Transition Credibility Assessment is an interactive tool to analyse company's transition plans and actions. BloombergNEF Research offers the necessary context to identify sector-specific risks and opportunities. Bloomberg ESG & Climate Indices facilitate transition planning by offering benchmarks to assess climate and sustainability performance, enabling companies to track progress, identify risks, and attract transition finance through transparent sustainability metrics.
Fitch ESG Relevance Scores & Climate Vulnerability Signals	Enable companies to understand material ESG credit risk and assess long-term climate vulnerability, helping companies prioritise transition strategies, benchmark against peers and communicate transition preparedness to lenders and investors seeking climate-aligned financing opportunities.
Moody's ESGView in CreditView	Provide comprehensive ESG impact on credit assessment and carbon transition risk, enabling companies to analyse and monitor alignment and progress against global policies and objectives, and demonstrate credibility to transition financiers through transparent ESG and sustainability ratings.
Morningstar Sustainalytics ESG Risk Ratings	Allow companies to gauge exposure to ESG risks and climate transition challenges, providing actionable insights for planning and facilitating access to sustainable capital.
MSCI Sustainability Solution	Provide organisations with comprehensive, data-driven evaluation of environmental, social, and governance factors, utilising structured datasets and robust controversy monitoring to support alignment with international sustainability standards and regulatory requirements.
Refinitiv ESG Scores	Enable transparent assessment of ESG factors, assisting firms in identifying sustainability gaps, enhancing transition plans, and meeting requirements for transition-related funding.
S&P Global Sustainable1	Support companies by supplying data and benchmarks to measure ESG progress, refine decarbonisation strategies, and communicate transition achievements to investors seeking transition-aligned finance.

Appendix II:

Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core ⁴⁴ Methodology
Governance, accountability and transparency					
Governance					
Climate change oversight <ul style="list-style-type: none"> State the highest level of which climate change-related or transition plan-related issues are managed within the organisation Disclose information about management’s role in the governance processes, controls, and procedures used to monitor, manage, and oversee climate and transition objectives State whether a Sustainability Committee is formed within the organisation. If yes, at what level it is established 	Y - As Governance: “Board oversight and reporting”, “Roles, responsibility and accountability”	Y	Y - As Governance and Strategy	Y - Disclosure Framework - Indicator	Y
Linkages of executive remuneration to climate	Y - As Governance: “Incentives and remuneration”	Y			Y
Actions to assess, maintain and build internal capacity <ul style="list-style-type: none"> Disclose information relating to actions to assess, maintain and build the appropriate skills, competencies and knowledge across the organisation to effectively design, develop, deliver and govern the transition 	Y - As Governance: “Skills, competencies and training”	Y			Y
External verification of climate-related disclosures <ul style="list-style-type: none"> State whether independent verification/assurance is sought for the organisation’s emissions data and/or company policies. If yes, at what level of verification/assurance 	N	Y			N

⁴⁴ The Accelerate Climate Transition® initiative (ACT Initiative) was formally launched in 2015 at COP21 and is now hosted by WBA. The ACT is a pioneering international initiative that creates a “climate accountability” framework to evaluate companies’ transition plans.

Appendix II: Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology
Policies supporting implementation strategy					
Climate change policy	Y - As Implementation Strategy: "Policies and conditions"	Y	Y - As Governance and Strategy	Y - Disclosure Framework - Indicator 7	Y
GHG emissions reduction policy		Y		Y - Disclosure Framework - Indicator 1-4	Y
Energy efficiency policy		Y		N	Y
Transition plan	Y	Y	Y - Disclosure Framework - Indicator 5 and 9	Y	

Appendix II: Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology
Delivery Strategy					
Taking action: implementation and risk management strategies					
Climate scenario analysis	Y	Y	Y	Y	Y
Identification and discussion of climate change risks and opportunities	- As Foundations: "Strategic Ambition"	Y	- As Governance and Strategy	- Disclosure Framework - Indicator 10)	Y
Climate integration into business • Disclose information about the short-, medium-, and long-term actions it is taking or plans to take in its business operations	Y - As Implementation Strategy: "Business operations", "Financial planning"	N	Y - As Strategic Asset Allocation	Y - Disclosure Framework - Indicator 5	Y
Internal carbon pricing	N	Y	N	N	Y
Use of low carbon products and services • Disclose information about short-, medium-, and long-term actions it is taking or plans to take to change its portfolio of products and services	Y - As Implementation Strategy: "Products and Services"	Y	N	Y - Disclosure Framework - Indicator 5	Y

Appendix II: Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology
Engagement					
Engagement with policymakers on responses to climate change <ul style="list-style-type: none"> Indicate if the organisation engages with policymakers on possible responses to climate change, e.g., taxation, regulation and carbon trading 	Y - As Engagement Strategy: "Engagement with government, public sector and civil society"	Y	Y - As Policy Advocacy	Y - Disclosure Framework - Indicator 7	Y
Engagement with industry associations/initiatives/value chain <ul style="list-style-type: none"> Disclose signatory or memberships, e.g., GFANZ, UNPRI, UN Global Compact, PCAF, Poseidon Principles, Equator Principles, UNEP FI Principles of Sustainable Insurance, UNEP FI Principles of Responsible Banking, RBA 	Y - As Engagement Strategy: "Engagement with value chain" and "Engagement with industry"	Y	Y - As Policy Advocacy and Stakeholder & Market Engagement	Y - Disclosure Framework - Indicator 7	Y

Appendix II: Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology	
Metrics and Targets						
Metrics and targets (emissions)						
Scope 1 emission reduction target	Y - As Metrics and Targets: "GHG metrics and targets" - As Metrics and Targets: "GHG metrics and targets"	Y	Y - As Objectives	Y - Disclosure Framework - Indicator 1-4	Y	
Scope 2 emission reduction target		Y			Y	
Scope 3 emission reduction target		Y	N		Y	
Net-zero target		Y	Y - As Governance and Strategy		Y	
SBTi validated target		Y	Y - As Objectives		N	Y
Interim target • Interim target may refer to short-, medium- and long-term targets with shorter durations		Y	Y - As Asset Level Assessment and Targets		Y - Disclosure Framework - Indicator 3	Y

Appendix II: Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology
Scope 1 greenhouse gas emission • Disclose absolute emission (tCO ₂ e) and emission intensity (tCO ₂ e per Sales/Revenue/Unit of Production)	Y - As Metrics and Targets: "GHG metrics and targets"	Y	Y - As Objectives	Y - Disclosure Framework - Indicator 2-4	Y
Scope 2 greenhouse gas emission • Disclose absolute emission (tCO ₂ e) and emission intensity (tCO ₂ e per Sales/Revenue/Unit of Production)		Y	Y - As Objectives		Y
Scope 3 greenhouse gas emission • Disclose absolute emission (tCO ₂ e) and emission intensity (tCO ₂ e per Sales/Revenue/Unit of Production)		Y	Y - As Objectives, only for material Scope 3 emissions		Y
Tracking of scope 1, 2 and 3 greenhouse gas emissions • Report progress in achieving the set targets	Y - As Metrics and Targets: "GHG metrics and targets" - As Foundations: "Strategic Ambition"	Y	Y - As Objectives	Y - Disclosure Framework - Indicator 11	Y
Use of carbon credits and other environmental attribute certificates	Y - As Metrics and Targets: "Carbon credits"	N	N	Y - Disclosure Framework - Indicator 11	Y

Appendix II: Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology
Metrics and targets (financials)					
Green revenue ratio (\$ and/or %) • Transition or EU Taxonomy-aligned	Y - As Metrics and Targets: "Financial metrics and targets" - TPT disclosure framework does not specify the metrics to be disclosed, but requires disclosure of relevant targets to meet by law or regulation, and those relating to investment and lending activities	Y	Y - Asset Level Assessment and Targets	Y - Disclosure Framework - Indicator 5	N
Green capital expenditure ratio (\$ and/or %) • Transition or EU Taxonomy-aligned		Y		Y - Disclosure Framework - Indicator 6	Y
Green operational expenditure ratio (\$ and/or %) • Transition or EU Taxonomy-aligned		Y	Y - As Asset Level Assessment and Targets for "Private Equity" and "Private Debt"	N	Y
Investment in climate solutions		N	Y - As Governance and Strategy	Y - Disclosure Framework - Indicator 5-6	Y

Appendix II: Mapping of transition plan related metrics to frameworks suggested by working group members

Metric	TPT Disclosure Framework	Bloomberg Transition Credibility Assessment	Net Zero Investment Framework	CA100+ Net Zero Company Benchmark Disclosure Framework	ACT Core Methodology
Financed green revenues (\$ or \$ invested) • EU Taxonomy-aligned	Y (as described above)	Y	Y - Asset Level Assessment and Targets	Y - Disclosure Framework - Indicator 5	N
Financed green capital expenditure (\$ or \$ invested) • EU Taxonomy-aligned		N		Y - Disclosure Framework - Indicator 6	N



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