GREEN COUNCIL
環保促進會

Training Course:
Establish greenhouse gas reduction targets: Science-based approach

Instructor:

Mr. Tony Wong, Founder & CEO of Alaya Consulting Limited

Moderator: Mr. Felix LAM

Remarks: This material/event is funded by the Professional Services Advancement Support Scheme of the Government of the Hong Kong Special Administrative Region. Any opinions, findings, conclusions or recommendations expressed in this material/any event organised under this project do not reflect the views of the Government of the Hong Kong Special Administrative Region or the Vetting Committee of the Professional Services Advancement Support Scheme.

Session 1
Wednesday, 11th May 2022
14:00-17:00

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Climate-related Risks

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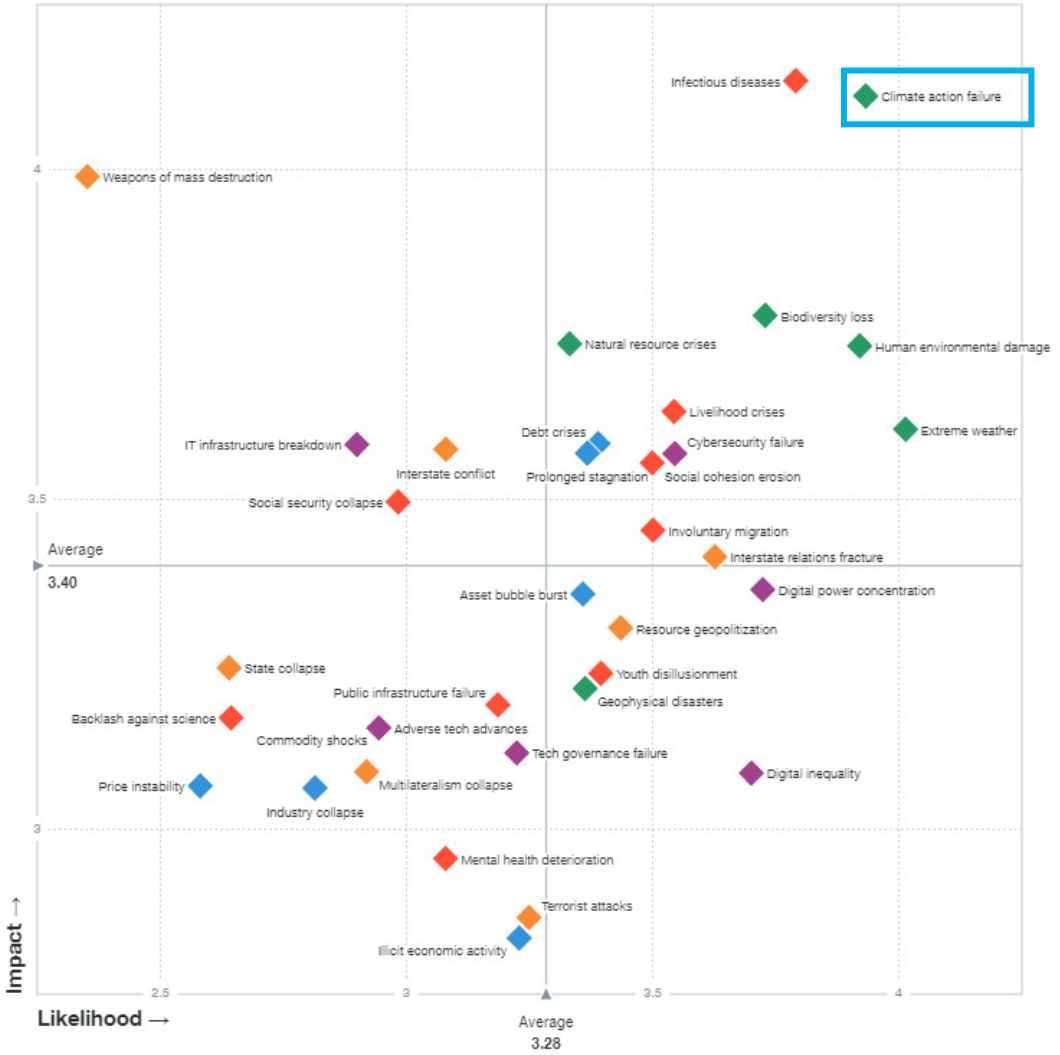
Climate-related risk



Source: World Economic Forum Global Risks Perception Survey 2020

U.S. Oil Majors Downgraded by S&P on Climate Risk, Earnings

- Rating agencies and financial institutions actively respond to financial-related impacts on climate change in response to the surge in shareholder demand for climate change-related issues
- Credit ratings of Exxon Mobil and Chevron have been downgraded due to risk profile on climate change

Increasing investors' concern

Investors call on Australia's largest oil and gas company to set greenhouse targets

More than half of Woodside's investors support shareholder motion to set targets in line with Paris climate agreement

Media release

Woodside climate targets: uninspiring business as usual

11th November 2020

Woodside sets net zero emissions target at Australian LNG project

Operator sets new goals for expanded liquefaction project in Australia

8 June 2021 9:05 GMT *UPDATED 9 June 2021 8:51 GMT*

Shell: Netherlands court orders oil giant to cut emissions

26 May

Climate change

Activists hugged in court after the judge delivered the verdict

- **A court in the Netherlands has ruled in a landmark case that the oil giant Shell must reduce its emissions.**
- By 2030, Shell must cut its CO2 emissions by 45% compared to 2019 levels, the civil court ruled.
- The Shell group is responsible for its own CO2 emissions and those of its suppliers, the verdict said.

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Task Force on Climate-Related Financial Disclosure

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

- Established in 2015, published Recommendations of TCFD in 2017
- Voluntary climate-related financial disclosures Framework

HKEX 香港交易所

We proposed introducing a new Aspect A4 consisting of:

(a) General Disclosure - policies on measures to identify and mitigate the significant climate-related issues which have impacted, and those which may impact the issuer; and

(b) a KPI - requiring a description of the significant climate-related issues which have impacted, and those which may impact the issuer, and the actions taken to manage them.

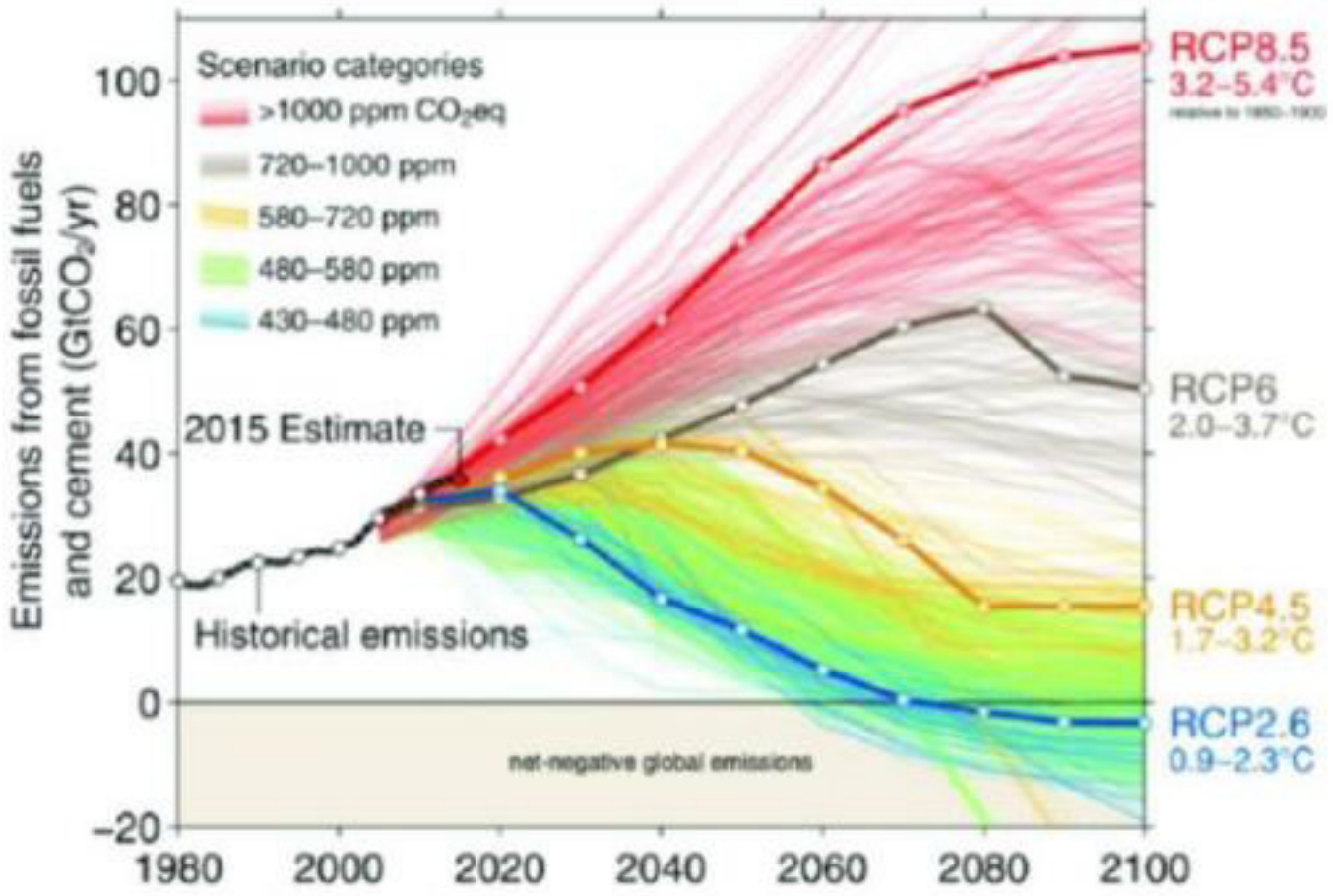
We proposed revising the Environmental KPIs (where applicable) to require disclosure of a description of targets set regarding emissions, energy use and water efficiency, waste reduction, etc. and steps taken to achieve them.

HONG KONG MONETARY AUTHORITY 香港金融管理局

Climate-related disclosures & sustainability reporting

Making progress towards mandating climate-related disclosures aligned with the Task Force on Climate-related Financial Disclosures (TCFD) framework by 2025 across relevant sectors, the Steering Group supports the efforts by the International Sustainability Standards Board under the International Financial Reporting Standards Foundation[2](IFRS Foundation) to develop a new standard which would be built on the TCFD framework. The Securities and Futures Commission (SFC) and the Hong Kong Exchanges and Clearing Limited (HKEX) will collaborate with the Financial Reporting Council and the Hong Kong Institute of Certified Public Accountants to work on a roadmap to evaluate and potentially adopt the new standard.

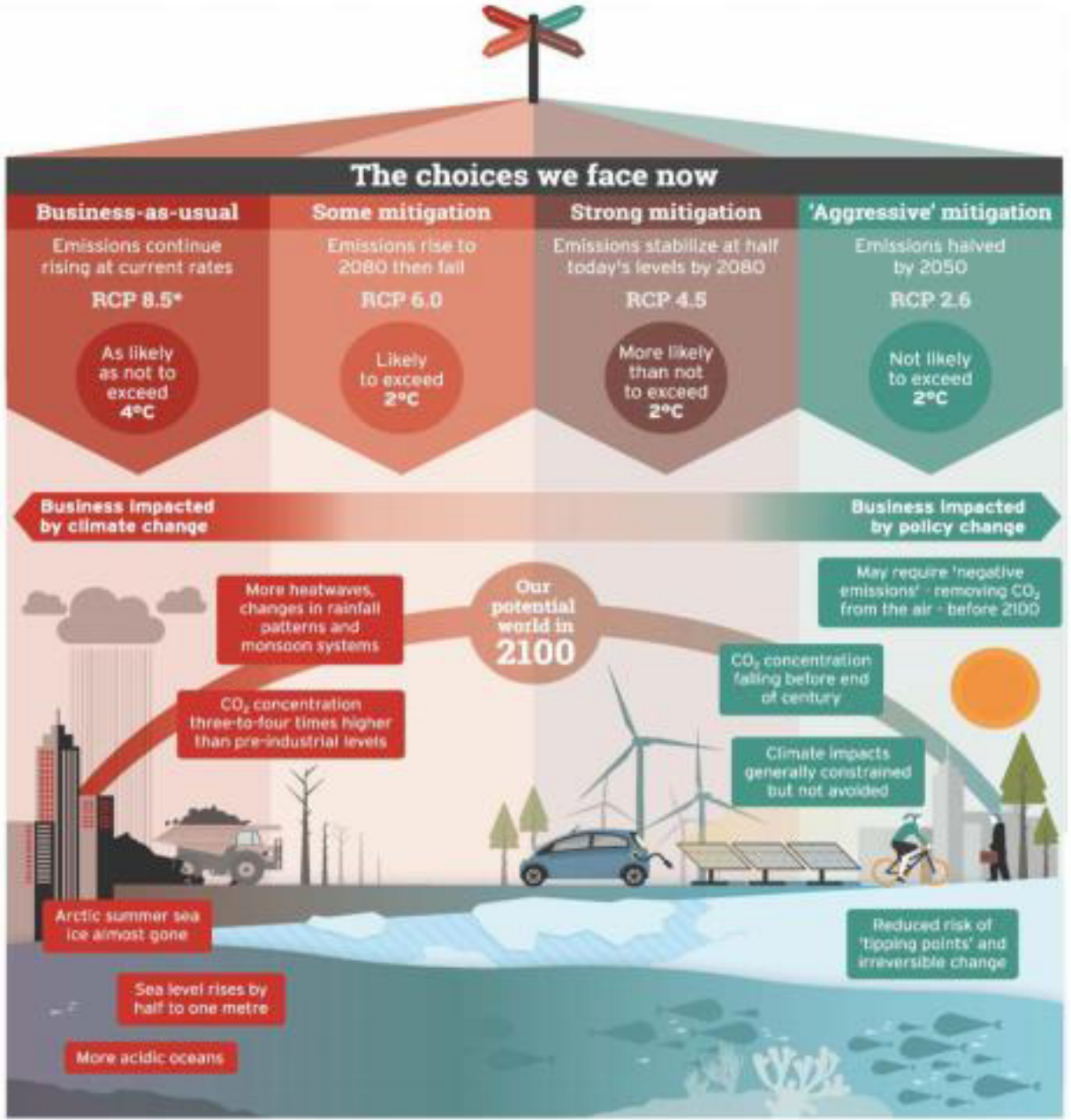
Different Climate Scenarios



The Representative Concentration Pathways (RCP) 8.5 pathway delivers a temperature increase of about 4.3˚C by 2100, relative to pre-industrial temperatures.

Image Credit: Neil Craik, University of Waterloo

Different Climate Scenarios



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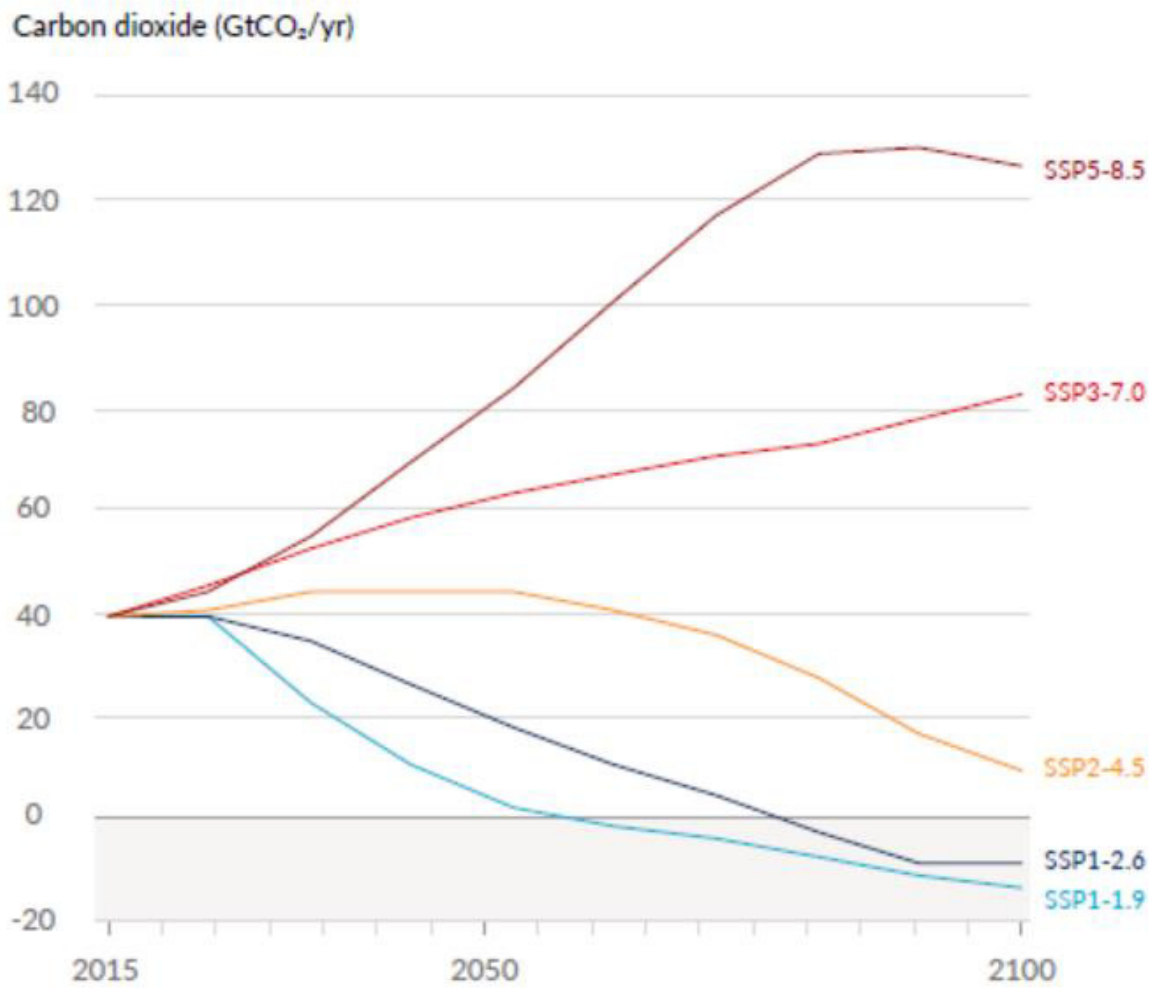
Different Climate Scenarios



- **Shared Socioeconomic Pathways (SSP)1-1.9**: very ambitious scenario to represent the 1.5°C goal of the Paris Agreement
- **SSP1-2.6**: sustainable development scenario
- **SSP2-4.5**: intermediate scenario
- **SSP3-7.0**: regional rivalry scenario
- **SSP5-8.5**: fossil-fuel based development

Image Credit: Neil Craik, University of Waterloo

Climate-related risk & opportunity

Climate-related Risks

Physical

Physical imapct of climate change to the enterprises: damage of assets etc

- **Acute** The severity of extreme events such as floods, typhoons, and heat waves will cause direct damage to assets, such as damage to properties under construction or built, devaluation of assets, and reduced in revenue
- **Chronic** Sea level rise, global temperature rise and changes in rainfall, etc., such as sea level rise may erode reserved land and damage coastal properties

Transition

The risk that enterprises may face when transfering to low-carbon business

- **Technology** The impact of technological improvements/innovations that support the transition to a low-carbon, energy-saving economic system. For example, the development of green building strategy might affect competitiveness and operating costs
- **Market** The increased of climate change awareness may affect the supply and demand of products and services. For example, changes in consumer preferences, such as preference for green buildings, may affect the property price
- **Policy and Legal** Changing policies might cause climate-related legal litigation risks to business strategies. For example, increasingly stringent environmental regulations may face higher litigation risks
- **Reputation** Attitude towards climate change might affect the perceptions of consumers and investors, which may cause short-term reputation risks and long-term loss of value

Climate-related Opportunities

External

External benefit might achieve when enterprises adopting adaptation approach to climate change

- **Resilience** Participation in renewable energy programs and adoption of energy-efficiency measures, this could create a better reputation to attract investors
- **Markets** Could make use of public-sector incentives and access to new market, which enlarge the number of potential clients

Internal

Internal benefit might achieve when enterprises adopting adaptation approach to climate change

- **Energy Source** Adopting low-emission sources of energy could be a supportive policy incentives and opportunities to participate in carbon market
- **Resources efficiency** Reduce the consumption of resources and increase the efficiency of use of resources, in which will lower the operation cost as well
- **Products & Services** Developing and expanding low emission properties and services could help achieve a low-carbon business model for sustainable development

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TCFD Disclosure

TCFD consider scenario analysis as an important and useful tool for companies to understand the relations between risks and opportunities of climate change and the company

- Under uncertain conditions, assess the possible risks and opportunities brought by climate change in the future
- With the reference the scenario analysis result, company could adjust their development strategies to enhance the adaptability to future changes and enterprise development capacity
- Scenario analysis is not used for accurate result or estimation but with a focus on the consideration of future changes and assumption of future

For transition risk analysis, the most widely used scenario is **IEA scenario** while **IPCC scenario** is mainly used for physical risk analysis.

Physical Risk Analysis

IPCC Analysis – RCP 8.5

Highest greenhouse gases emission baseline scenario
Under this scenario, it is assumed that there is no global climate change policies to intervene and limit emission.

Transition Risk Analysis

IEA Analysis – Current Policy Scenario
Assuming the nation and the Globe will keep the existing energy policies in which the government and the company would not do any adjustments on the nations and the company's policies.

IEA Analysis – Sustainable Development Scenario
Assuming sustainable development is highly promoted around the world. In order to address climate change and air pollution effectively, new policies and regulations are implemented to control the increasing global temperature into 2 °C.

Climate-related risk & opportunity

4 Steps to identify current risks, opportunities and related potential initiatives

01 ENSURE GOVERNANCE IS IN PLACE

- Integrate scenario analysis into risk management processes
- Assign oversight to Sustainability Committee
- Identify and involve stakeholders

02 ACCESS MATERIALITY OF CLIMATE-RELATED RISKS

Typical climate-related risks include:

- Market and Technology Shifts
- Reputation
- Policy and Legal
- Physical Risks

03 EVALUATE BUSINESS IMPACTS

Evaluate the potential impacts on:

- Input costs
- Operating costs
- Revenue
- Supply chain
- Business interruption
- Timing

04 IDENTIFY POTENTIAL RESPONSES

Use the results to identify appropriate responses include:

- Changes to business model
- Changes to portfolio mix
- Investments in capabilities and technologies

Climate-related risk & opportunity

AAC Technologies
2020 Sustainability Report (p.39-40)

	Risks/ Opportunities	Potential Business Impacts/Benefits	Our Response	Corresponding Section
Physical risks				
Acute	Increased frequency and severity of extreme weather events (e.g. typhoons) may damage our facilities and affect materials and products transportation	• Increased operating and maintenance costs • Loss of revenue	• Implemented natural disasters emergency plan • Conducted flood drill	Strengthening Environmental Risk Prevention
Chronic	Prolonged period of extreme hot weather	• Increased operating cost such as energy cost • Increased chance of heat-related injuries which affect employees' health and safety	• Established ISO 50001 Energy Management System in 2 plants in Changzhou • Implemented energy-saving measures	Optimising Energy Structure
Transition risks				
Policy and legal	Enactment of more stringent laws and regulations related to climate change	• Increased compliance cost	• Regularly monitor the regulatory trends	Strengthening Environmental Risk Prevention
Market	Change in customer preferences for green products	• Reduced revenue due to the decrease in demand for current products	• Ongoing study of application of recycled materials • Control and avoid hazardous materials in products	Green Products
Opportunities				
Products	More low-carbon, energy-saving technologies are developed	• Introduction of new technology to boost product competitiveness	• Exploring new environmental technologies and develop green products	Optimising Energy Structure
Resource efficiency	Raise energy efficiency, improve operation management	• Reduced energy cost	• Adopted energy saving technologies including waste heat recovery • Automisation of production • Machinery upgrade and refurbishment	Optimising Energy Structure Green Products

Tianjin Port Development
Annual Report 2020 (p.36-37)

Descriptions	Possible Financial Impacts	Current Response Measures
Physical Risks		
• Storm surge or waves damage or even cause flooding in the port, making normal port operations difficult during the storm (which may last for a few hours/days) • Damage to terminals, operating facilities, equipment, storage areas and cargo • Windstorms may lead to siltation at the port waterways, requiring additional maintenance and dredging of soil waste	• Decrease in revenue: Affect business operations • Decrease in assets: Depreciation of assets • Increase in expenditure: Maintenance of damaged infrastructure and equipment, dredging work, construction of port breakwater to resist windstorms	• Conducted annual flood prevention drills, and established emergency system and emergency plan • Established an emergency management team for flood prevention and ship gates protection in low-lying areas • Patented tidal baffles are in place to block the water when the water level rises and have achieved good results
• Transportation delays caused by extreme weather conditions are becoming more frequent, affecting the reliability of marine transportation	• Decrease in revenue: Decrease in market demand	• The Group optimised its operation and service quality by developing intelligent ports
Transition Risks		
• The government may implement a carbon pricing mechanism and increase the operating costs of the Group	• Increase in cost: Increase in emission cost	• Regular collection and update of regulations through government, Internet and other channels to ensure operational compliance
• The government may promulgate more policies to mitigate climate change which can increase operational compliance costs	• Increase in costs: Increase in renovation costs	
• Stricter environmental regulations may expose the Group to higher risks of being subject to claims and lawsuits	• Increase in costs: Legal cases of claims arising from non-compliance	• Conducted environmental assessment of subsidiaries and affiliates with reference to environmental performance assessment
• Increasing investment in the industry to develop intelligent green ports. For example, ports may need to increase the use of renewable energy • Widespread use of new energy-saving facilities has promoted corporates to purchase new equipment and replace old	• Increase in costs: Increased investment on research and development and purchase of new equipment • Decrease in assets: Abandonment of original equipment	• Promoted the construction of intelligent green ports and implementing green port initiatives in accordance with the port of Tianjin green port construction plan • Promoted the use of new energy and clean energy, such as the use of electric trucks and electric equipment
Opportunities		
• Development of green ports and improved energy efficiency	• Cost reduction: Reduction of operating costs	• Promoted the use of energy-saving lightings and clean energy equipment, and renovated existing facilities and equipment • Promoted the establishment of energy management system in subsidiaries and affiliates
• Change in investor preferences to focus on investing in green port operators	• Cost reduction: Reduction of finance costs	• Promoted the construction of intelligent green ports and implemented green port initiatives in accordance with the port of Tianjin green port construction plan
• Changes in consumer preferences, such as preference for more environment-friendly products (such as low-carbon vessels fuel), and reduced demand for fossil fuels	• Increase in revenue: Increase in sales volume of low-carbon fuel	• Accelerated the Group's low-carbon transformation and actively participated in low-carbon construction

TCFD Disclosure

Governance

Disclose governance around **climate-related risks** and **opportunities**

- Describe Sustainability Committee's oversight of climate-related risks and opportunities
- Describe management's role in assessing and managing climate-related risks and opportunities.

Strategy

Disclose the **actual and potential impacts** on the business, strategy, and financial planning where such information is material

- Describe the climate-related risks and opportunities entity has identified over the short, medium, and long term
- Describe the impact of climate-related risks and opportunities on the entity's business, strategy, and financial planning
- Describe the resilience of the entity's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Risk Management

Disclose how the entity **identifies, assesses, and manages** climate-related risks.

- Describe the process for identifying and assessing climate-related risks
- Describe the processes for managing climate-related risks
- Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the entity's overall risk management.

Metrics and Targets

Disclose the **metrics and targets used** to assess and manage relevant climate-related risks and opportunities where such information is material.

- Disclose the metrics used to assess climate-related risks and opportunities in line with its strategy and risk management process
- Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks
- Describe the targets used to manage climate-related risks and opportunities and performance against targets

TCFD Disclosure

Q: Is there a connection between SBT and TCFD? are they complementing each other?

A: Very connected especially in relation to transition risks where one has to assess the financial materiality of things like investment in decarbonisation, carbon taxes or regulatory developments and policies in energy, carbon that can impact your business

A: SBTs enable companies to meet the requirements of Metrics & Targets area of the TCFD. The rationale for this target disclosure is investors & other stakeholders need to understand how a company measures and monitors climate-related risks & opportunities

Global Momentum of the TCFD Recommendations

Organizations around the world are increasingly expressing support for the TCFD recommendations

Jurisdictions Use of the TCFD Recommendations

April 2021: The European Commission issued a proposal calling for the development of sustainability reporting standards that take into account existing frameworks including the TCFD

June 2021: Switzerland's Financial Market Supervisory Authority amended disclosure rules for banks and insurers to include climate-related financial risks, based on the TCFD

June 2021: The Tokyo Stock Exchange issued a revised Corporate Governance Code that indicates certain companies should enhance disclosure based on the TCFD

October 2021: The Canadian Securities Administrators issued proposed disclosure requirements for issuers aligned with the four recommendations of the TCFD

October 2021: New Zealand passed a law to require certain organizations to make climate-related financial disclosures in line with the TCFD recommendations. The law is expected to go into effect in 2023, subject to the publication of reporting standards

November 2021: Australian Prudential Regulatory Authority published TCFD-aligned guidance on managing climate risks

December 2021: The Financial Conduct Authority issued a final rule requiring issuers to make TCFD-aligned disclosures on a comply or explain basis

December 2021: The Hong Kong Monetary Authority issued a manual on climate risk management and indicated the TCFD recommendations are "a desirable framework for [Authorized Institutions] to rely upon"

December 2021: The Brazilian Securities Exchange Commission amended its rules to require issuers to indicate whether they disclose information based on the TCFD recommendations or another recognized source

December 2021: The Singapore Exchange amended its rules to require climate reporting based on the TCFD by certain industries for FY2023 and additional industries for FY2024

March 2022: The U.S. Securities and Exchange Commission published a proposed rule on climate-related disclosures that incorporates key aspects of the TCFD framework

Other Supporting Initiatives

G7

"We support moving towards mandatory climate-related financial disclosures that provide consistent and decision-useful information for market participants and that are **based on the Task Force on Climate-related Financial Disclosures (TCFD) framework**, in line with domestic regulatory frameworks."

G20

"We agree on the importance of promoting globally consistent, comparable high-quality **standards of disclosure for sustainability reporting, building on the recommendations of the FSB's Task Force on Climate-related Financial Disclosures**."

European Commission

"The Commission supports initiatives by the G20, the G7, the Financial Stability Board and others to generate international commitment to develop **a baseline of global sustainability reporting standards that would build on the work of the Task Force on Climate-related Financial Disclosures."**

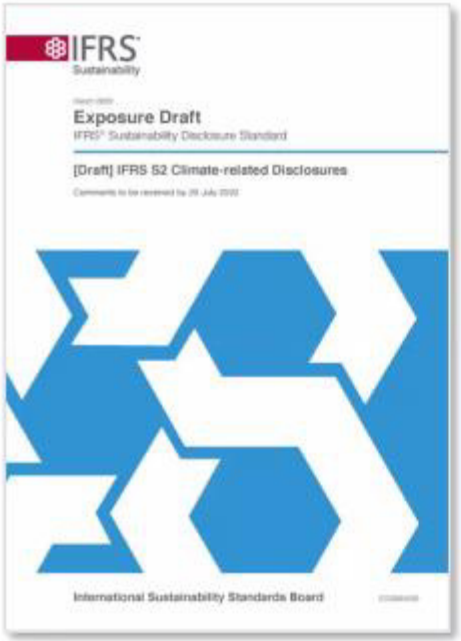
FSB Financial Stability Board

"The FSB strongly encourages national or regional authorities that are developing requirements or guidance for climate-related disclosures to consider using the TCFD recommendations as the basis."

IFRS®

The International Sustainability Standards Board's proposed sustainability standards that **"build upon the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)".**

Climate Exposure Draft



Requirements for disclosure of material information about significant climate-related risks and opportunities

- Requires disclosure of information about;
  - physical risks (eg flood risk)
  - transition risks (eg regulatory change)
  - climate-related opportunities (eg new technology)

Relation to TCFD and SASB

Consistent with TCFD

- Governance
- Strategy
- Risk management
- Cross-industry metrics and targets
- Illustrative guidance

Builds on SASB Standards

- Industry-based disclosures in Appendix B derived from SASB Standards
- Proposed changes to:
  - Internationalise metrics
  - Add financed emissions disclosures

Key Features

Transition planning

Emissions targets and use of carbon offsets

Climate resilience

Resilience of business strategy in multiple scenarios

Scope 1-3 emissions

Requirement to disclose GHG emissions

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Introduction of SBTs

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SBTi – Evolution

May 2015

LAUNCH OF THE SBTi

Oct 2018

PUBLICATION OF *IPCC SPECIAL REPORT ON GLOBAL WARMING OF 1.5°C (SR 1.5)*

Mar 2019

SBTi PUBLISHES NEW SUITE OF RESOURCES FOR 1.5°C ALIGNED SBTs

Jun 2019

SBTi LAUNCHES THE *BUSINESS AMBITION FOR 1.5°C CAMPAIGN*

BUSINESS AMBITION FOR 1.5°C

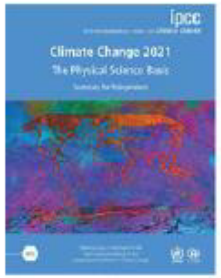
Nov 2019

SBTi PUBLISHES *NET ZERO DISCUSSION PAPER* AND GATHERS FEEDBACK FROM STAKEHOLDERS

Sept 2020

SBTi LAUNCHES *FOUNDATIONS PAPER FOR SCIENCE-BASED NET-ZERO TARGET SETTING IN THE CORPORATE SECTOR* AND NZ STANDARD DEVELOPMENT

Aug 2021



PUBLICATION OF IPCC SPECIAL REPORT, *THE PHYSICAL SCIENCE BASIS*

Nov 2021

COP26

COP26

Science Based Target Initiative (SBTi)?

The SBTi is a partnership between:

CDP

United Nations Global Compact

World Resources Institute

WWF

- Defines and promotes best practice in science-based target setting
- Provides technical assistance and expert resources to companies who set science-based targets in line with the latest climate science
- Brings together team of experts to provide companies with independent assessment and validation of targets
- Leads the Business Ambition for 1.5°C campaign, mobilizing companies to set science-based targets in line with a 1.5°C future
- Businesses who sign the SBTi commitment letter are:
  - Immediately recognized as “Committed” on the SBTi, CDP and We Mean Business, UN Global Compact websites
  - If committing to the highest level of commitment ambition, the company is recognised in the Business Ambition for 1.5C campaign

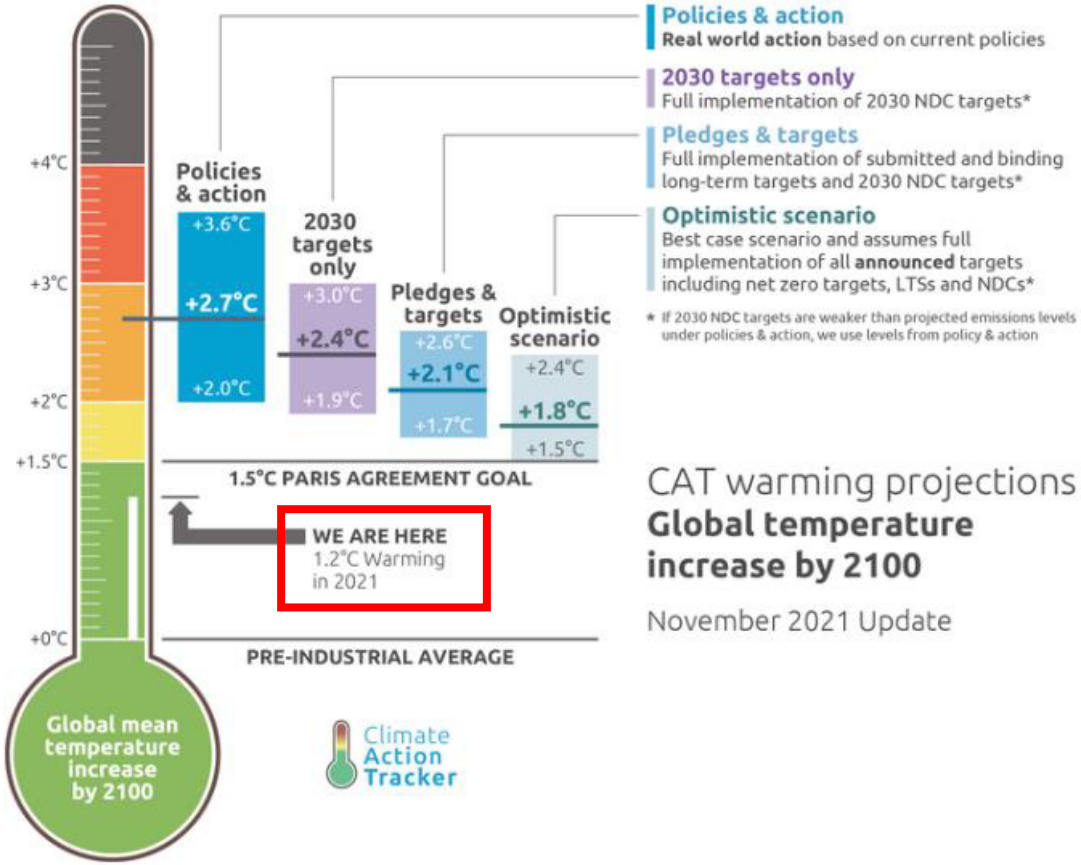
Science Based Target (SBT)?

An SBT is to be understood within the context of the Paris Agreement.

- Legally binding international treaty on climate change
- Participating nations have committed to limiting global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels
- **<u>In order to achieve 1.5°C limit, GHG Emissions must halve by 2030 and be net-zero by 2050</u>**
- A rise above 1.5°C will result in severe consequences, categorised by the TCFD as 'physical and transition risks'

"Science-based targets provide a clearly-defined pathway for companies to reduce greenhouse gas (GHG) emissions [including how much and how quickly], helping prevent the worst impacts of climate change and future-proof business growth."

– SBTi



Source: Climate Action Tracker

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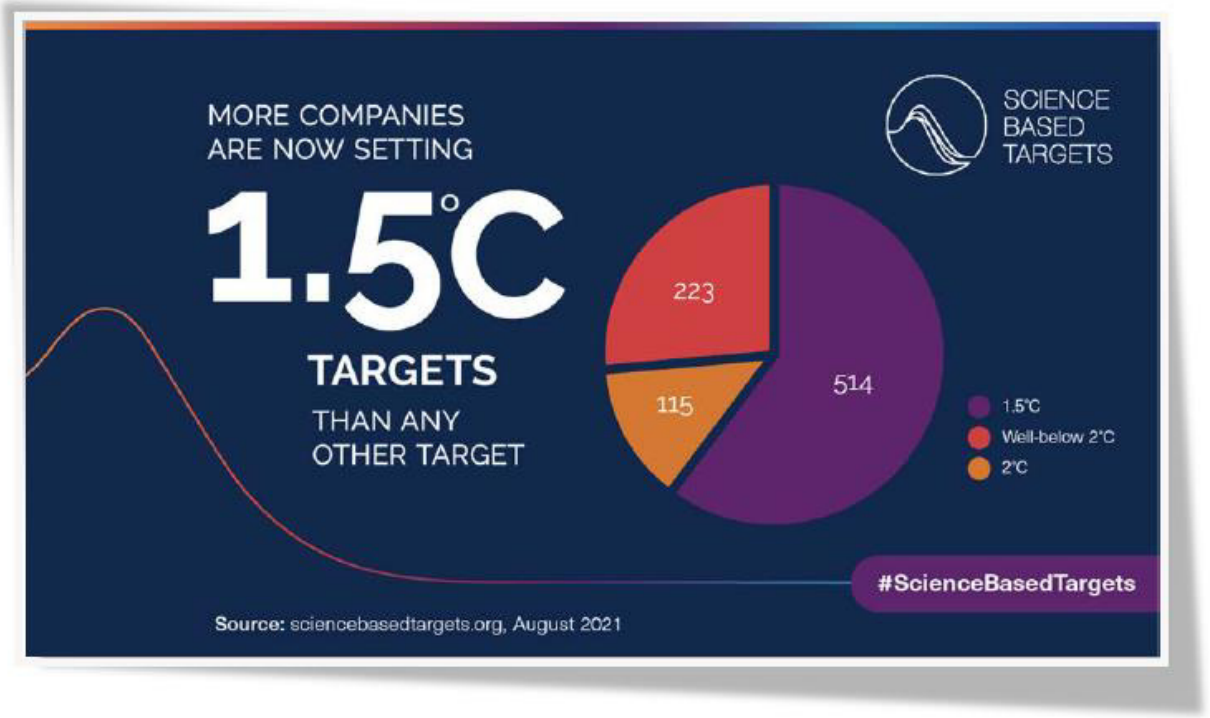
SBTi – 1.5ºC is the new normal

- **66% of all science-based targets validated by the SBTi in 2021** have been 1.5°C aligned for scope 1 and 2.
- Hundreds of companies have now committed to **achieving net-zero emissions by 2050** through the Business Ambition for 1.5°C campaign.



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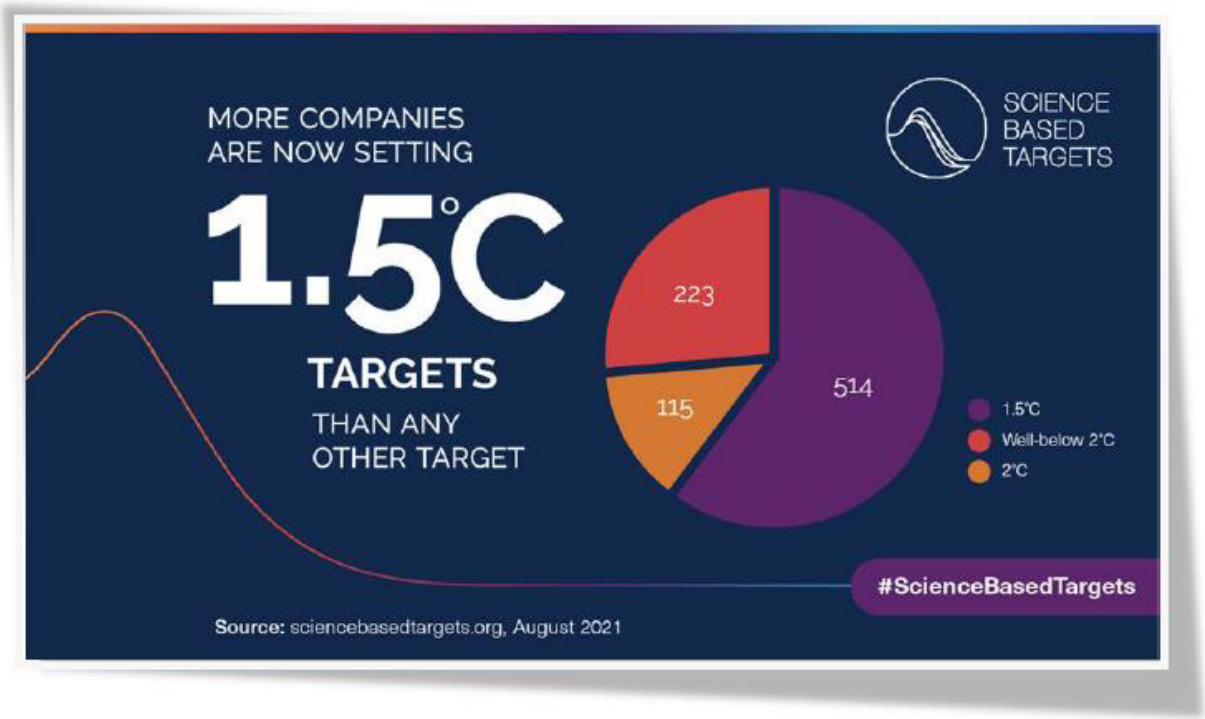
SBTi – 1.5ºC is the new normal

- On 15 July 2021, the SBTi unveiled its new strategy to increase minimum ambition in corporate target setting **from well below 2°C to 1.5°C** above pre-industrial levels.
- The new strategy is in response to **increasing urgency** for climate action and the success of science-based targets to date.
- <u>All companies that submit targets **from 15 July 2022** will need to align to the new criteria.</u>



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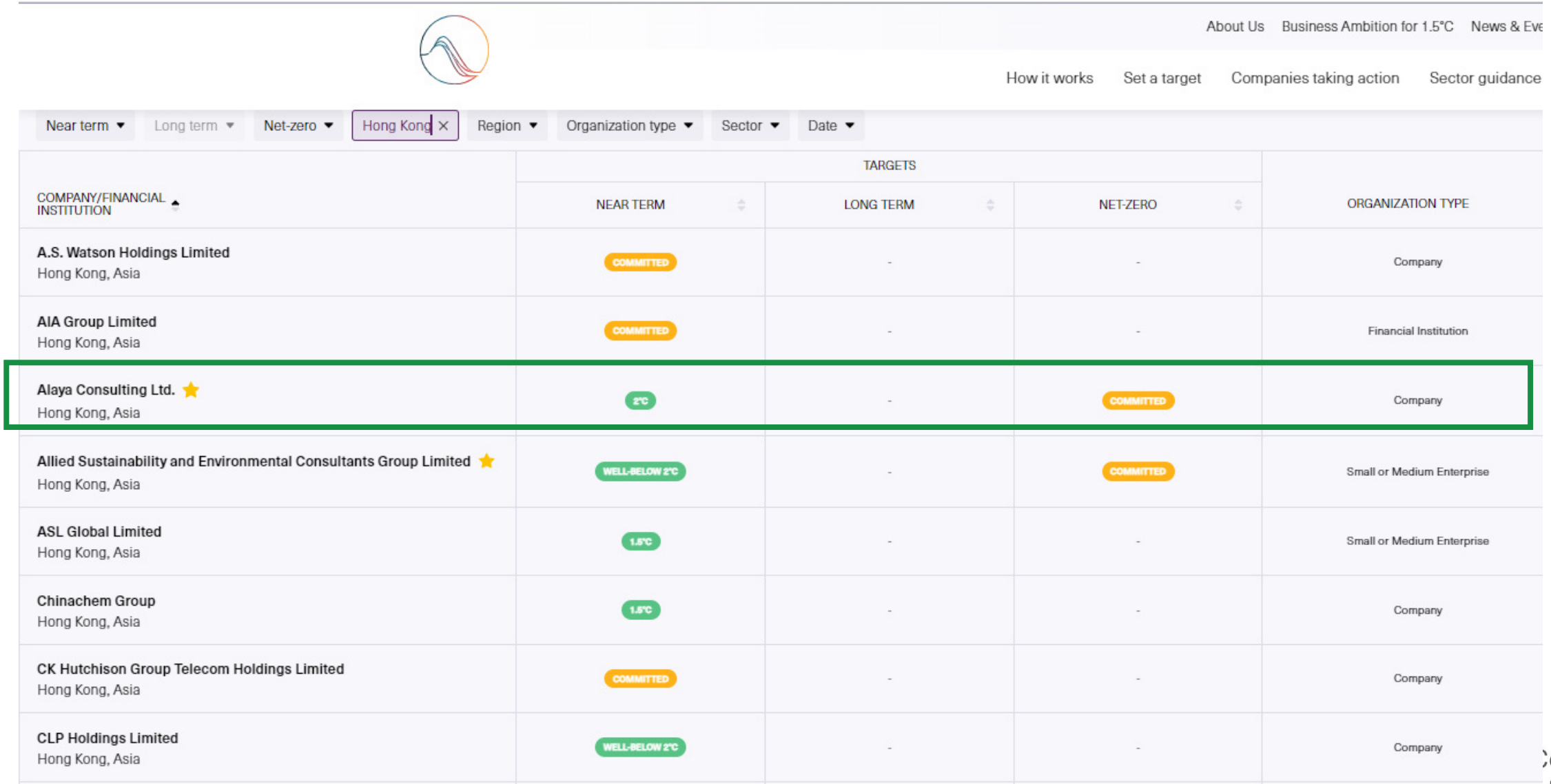
Science Based Target - Transparency



COMPANY/FINANCIAL INSTITUTION	TARGETS			ORGANIZATION TYPE
	NEAR TERM	LONG TERM	NET-ZERO	
A.S. Watson Holdings Limited Hong Kong, Asia	COMMITTED	-	-	Company
AIA Group Limited Hong Kong, Asia	COMMITTED	-	-	Financial Institution
Alaya Consulting Ltd. ★ Hong Kong, Asia	2°C	-	COMMITTED	Company
Allied Sustainability and Environmental Consultants Group Limited ★ Hong Kong, Asia	WELL-BELOW 2°C	-	COMMITTED	Small or Medium Enterprise
ASL Global Limited Hong Kong, Asia	1.5°C	-	-	Small or Medium Enterprise
Chinachem Group Hong Kong, Asia	1.5°C	-	-	Company
CK Hutchison Group Telecom Holdings Limited Hong Kong, Asia	COMMITTED	-	-	Company
CLP Holdings Limited Hong Kong, Asia	WELL-BELOW 2°C	-	-	Company

Science Based Target - Transparency

Q: Hello, may I know if it is a must to disclose our target achievement status in the target year? Thanks

A: The SBTi does not currently track companies' progress against their targets but all companies with approved targets are required to annually report their company-wide GHG emissions to ensure that targets progress can be tracked.

Science Based Target Progress Report

- Despite the challenges posed by COVID-19, adoption of science-based targets **continued to accelerate in 2020**. We are now approaching a **critical mass** of companies setting science-based targets in many sectors and geographies.
- Companies with science-based targets have delivered emissions reductions in the real economy at scale: we now have evidence that companies' science-based ambition is **backed up by real emissions reductions**.
- Over 1,000 companies are working with the SBTi to reduce their emissions . From November 2019 - October 2020, 370 organizations joined the SBTi at an average rate of 31 companies per month – more than double the rate from 2015 to 2019.

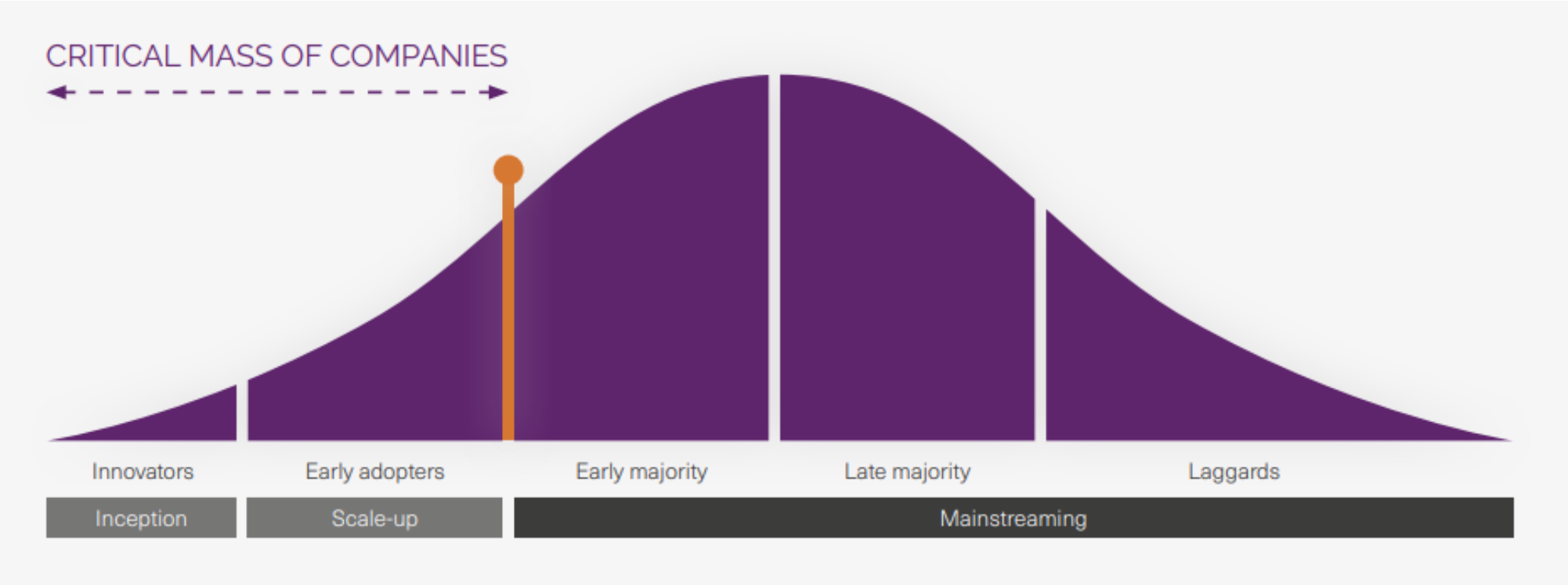
SBTi – Progress to date

Companies with science-based targets are delivering emissions reductions at scale.

- Companies with science-based targets reduced emissions by **25% between 2015-2020**, compared with **an increase of 3.4%** in global emissions from energy and industrial processes.
- The typical company with SBTs reduced direct (scope 1 and 2) emissions at a linear annual rate of **6.4%**. This **exceeds** the rate required by the SBTi's criteria to meet 1.5°C scenarios (4.2%).

Science Based Target Progress Report

SBTI takes the threshold of 20% as a critical mass for science-based target-setting in a given sector or geography



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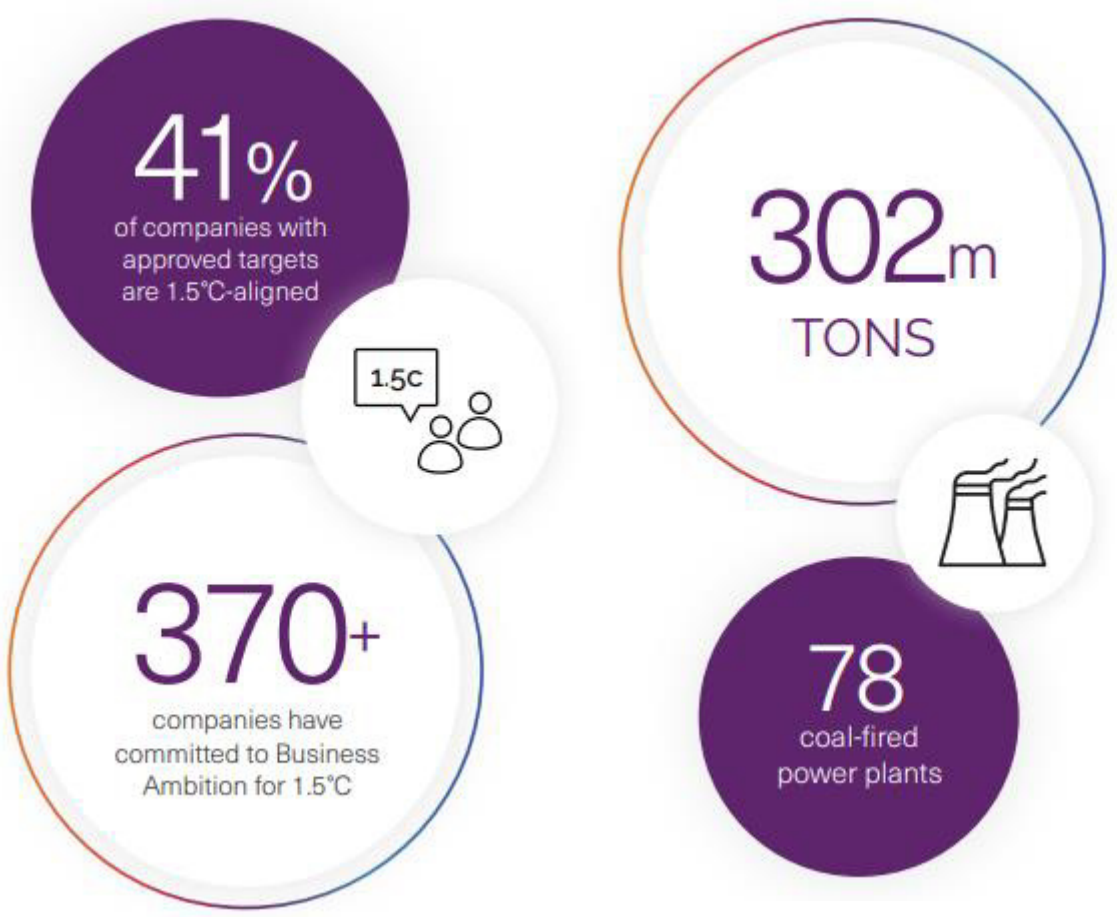
Science Based Target Progress Report

- The 338 companies in our analysis collectively reduced their annual emissions by 25% between 2015 and 2019 – a difference of 302 million tonnes, which is equivalent to the annual emissions of 78 coal-fired power plants.
- SBTI companies make up nearly 20% of total global companies in terms of market cap
- 94% of companies with approved science-based targets have set value chain targets



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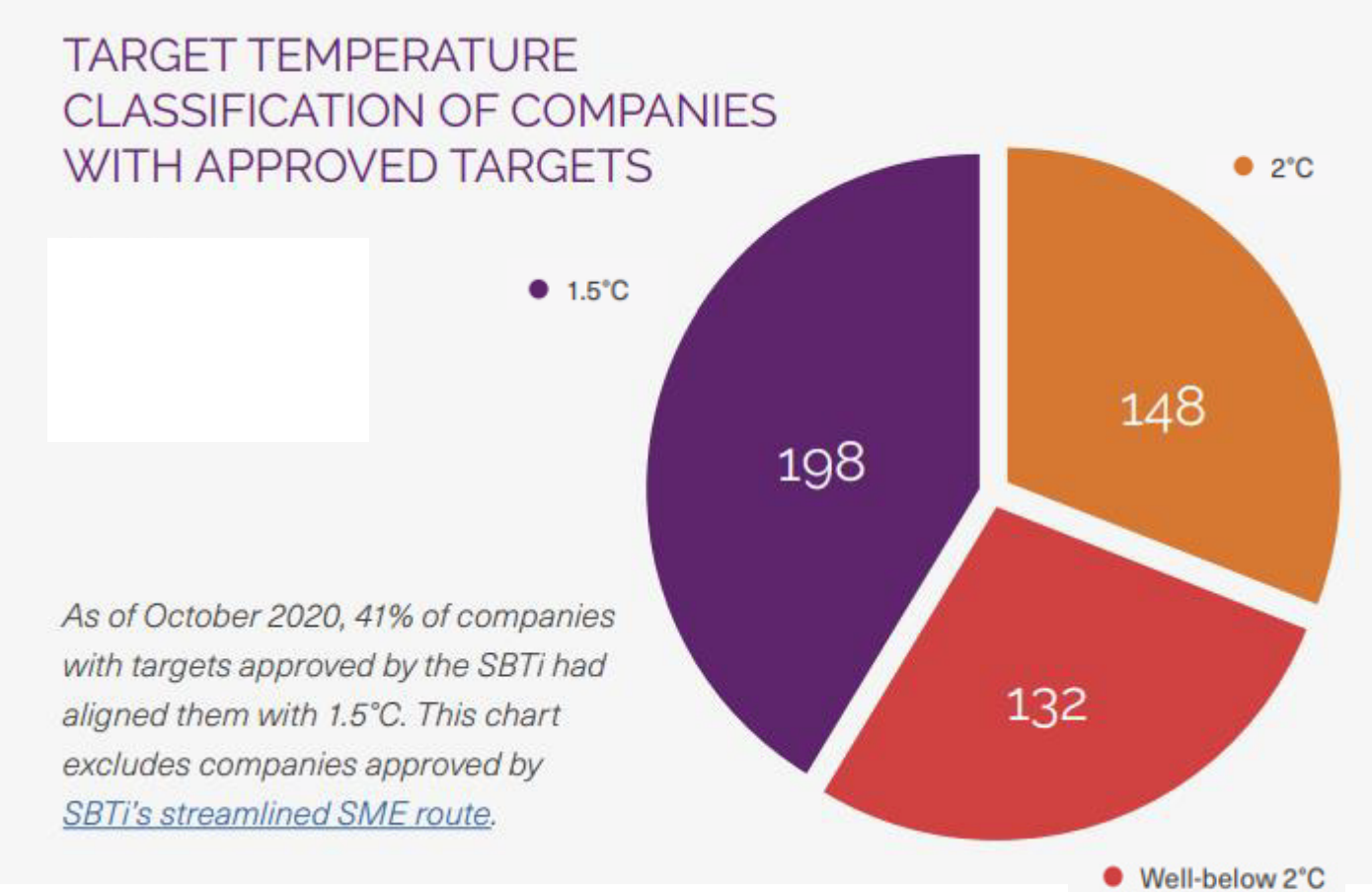
Science Based Target Progress Report - 1.5°C and beyond

- In business terms, a 1.5°C world is one that is more economically stable, in which supply chains are less susceptible to flood and extreme weather risks;
- Workforces are less exposed to extreme heat, water scarcity and food shortages; and company operations are less at risk from dramatic changes to water supplies.

Science Based Target Progress Report - 1.5°C and beyond

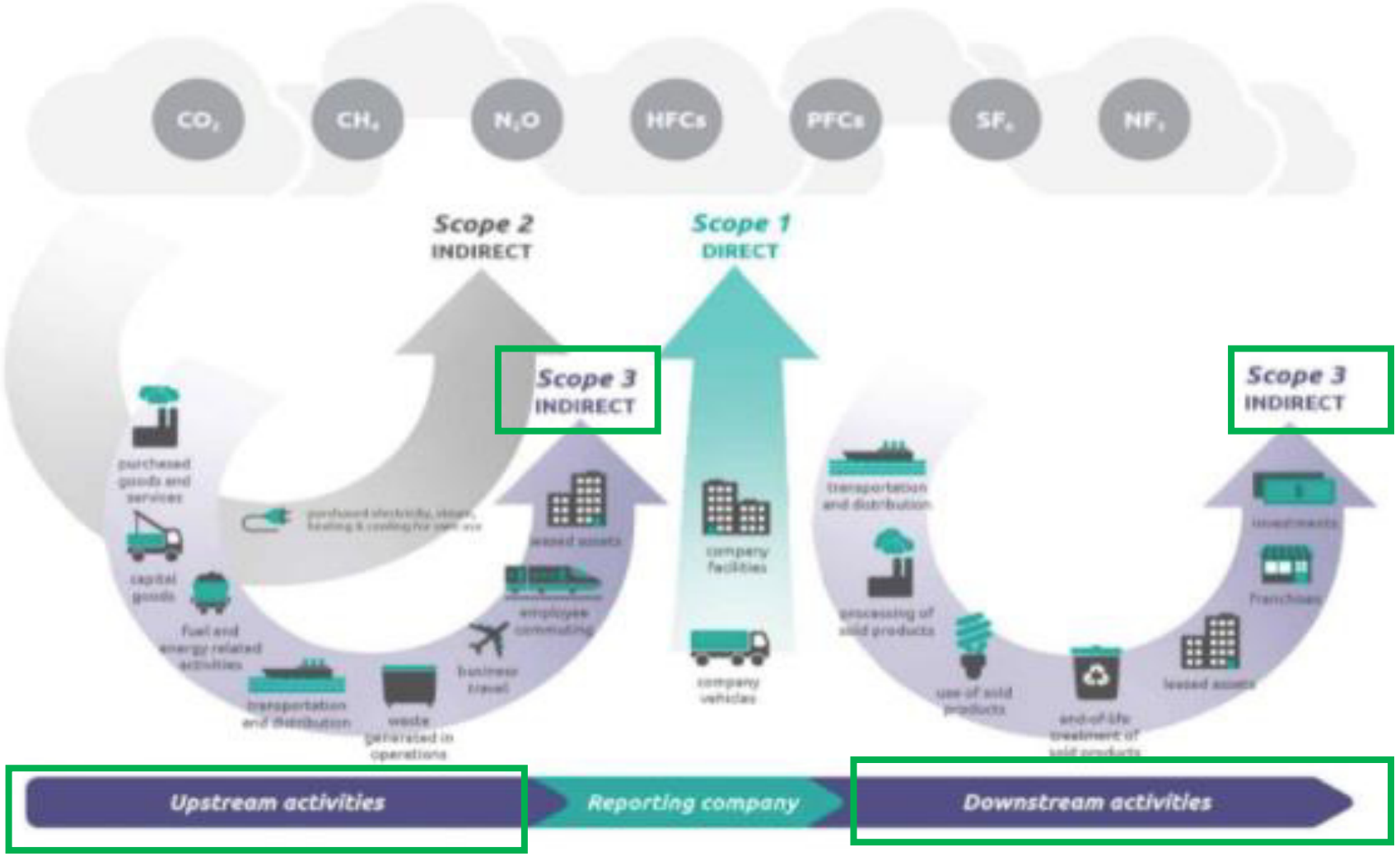


- The SBTi enables companies to set targets in line with the Paris Agreement, with 1.5°C representing the highest level of ambition.
- Currently only targets relating to emissions coming from companies' direct operations (i.e. scope 1 and 2 emissions) receive a temperature classification.
- As of October 2020, 41% of companies with approved targets had aligned them with a 1.5°C trajectory, with the remainder classified as either 'well-below 2°C' or '2°C'.

Science Based Target Progress Report - 1.5°C and beyond

- As of December 2020, 373 companies, representing more than $8.6 trillion in market capitalization, had committed via the campaign to setting 1.5°C-aligned targets across their operations and value chains. Many of them have also pledged to reach net-zero emissions by 2050 or before.
- Companies joining the Business Ambition for 1.5°C campaign automatically become part of the UNFCCC's Race to Zero coalition, which seeks to rally leadership and support from businesses, cities, regions and investors to reach net-zero by 2050.
- Currently 454 cities, 23 regions, 1,397 businesses and 74 major investors have stepped up to join 120 countries in the Race to Zero. Collectively they cover nearly 25% of global CO2 emissions and over 50% of global GDP.
- These two campaigns are building momentum around ambitious science-based target setting and the shift to a net-zero economy, and are sending a clear signal that business, cities, regions and investors are united in their commitment to achieving global climate goals.

Science Based Target Progress Report – value chain



- 94% of companies with approved science-based targets have set scope 3 targets in line with climate science.
- We are also seeing a cascading effect of science-based target setting as companies seek to reduce their supply chain impacts, with 69 companies **setting supplier engagement targets** requiring their suppliers to set their own science-based targets.

Science Based Target – Recognised Standard

Q: What were the drivers to adopt SBTi for your respective companies?

A: It is a structured and data driven approach that takes away subjectivity to the process, so also more credible. You can also line up your contribution to a global objectively. I consider SBTi the most rigorous approach to a SDG/global goal.

STRENGTHEN RESILIENCE AND ADAPTIVE CAPACITY TO CLIMATE RELATED DISASTERS

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

INTEGRATE CLIMATE CHANGE MEASURES INTO POLICIES AND PLANNING

Integrate climate change measures into national policies, strategies and planning.

Alaya Consulting
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Science-based Target Setting

Situation

Founded in 2014, Alaya Consulting has been advising listed companies on ESG disclosure, assurance and GRI certified training. Positioning itself as the leading facilitator of corporate sustainability, Alaya practices what it preaches. We not only have our own environmental policy and a defined recycling initiative but also manage our carbon footprint scrupulously.

Predominantly an office-based operation, Alaya consumes a relatively small amount of energy. Nevertheless, we believe it is critical for us to be a part of the solution to set our own carbon reduction target. We follow the methodology advocated by SBTi, a collaboration between CDP, the UN Global Compact, the World Resources Institute and the World Wide Fund for Nature. Targets adopted by companies to reduce greenhouse gas emissions are considered "science-based" if they are in line with the level of decarbonization required to keep global temperature increase below 2 degrees Celsius compared to pre-industrial temperatures.

Challenge

There was no ESG consultancy in Asia having approval from SBTi for its science-based target. To qualify for an approved SBT, Alaya's carbon reduction strategy was required to demonstrate its alignment with the Paris Agreement (the 2-degree Celsius commitment), meeting a set of stringent sector-based emissions reduction targets for Scope 1, 2 and 3 emissions. Leveraging on in-house capability on carbon accounting and consulting, we have intensively examined the SBT manual and identified critical decisions impacting target setting, for example, selecting the base year and target year, conducting Scope 3 screening, and more importantly, how can we be confident that the target is attainable.

Outcome

Alaya Consulting is the first ESG consultancy in Asia to receive approval from SBTi regarding carbon reduction target. **We are committed to reduce Scope 1 and 2 GHG emissions by 47% per square meter by 2023, from the base year 2017. Scope 3 GHG emissions from purchased goods and services, capital goods, waste generated in operations, business travel and employee commuting are to be reduced 7% by 2023 from the base year 2017.** ***By having our own SBT, which forms an integral part of our carbon disclosure strategy aligning with TCFD recommendations, we show by example to corporates in Hong Kong and China how they can contribute to a sustainable environment for business and for future generations.***

Alaya Consulting
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Science Based Target – Greater China

COMPANY/FINANCIAL INSTITUTION	TARGETS		
	NEAR TERM	LONG TERM	NET-ZERO
Alaya Consulting Ltd. ★ Hong Kong, Asia	2°C	-	COMMITTED
HK Electric Investments (HKEI) Hong Kong, Asia	2°C	-	-
ASL Global Limited Hong Kong, Asia	1.5°C	-	-
Chinachem Group Hong Kong, Asia	1.5°C	-	-
Swire Properties Limited ★ Hong Kong, Asia	1.5°C	-	COMMITTED
Swire Coca-Cola Limited ★ Hong Kong, Asia	1.5°C	-	-
CO2nnsulting Limited Hong Kong, Asia	WELL-BELOW 2°C	-	-
Allied Sustainability and Environmental Consultants Group Limited ★ Hong Kong, Asia	WELL-BELOW 2°C	-	COMMITTED
Ronald Lu & Partners Hong Kong, Asia	WELL-BELOW 2°C	-	-
CLP Holdings Limited Hong Kong, Asia	WELL-BELOW 2°C	-	-

Science Based Target – Greater China

Company	Area	Sectors
AEC	Hong Kong	Professional Services
Swire Coca-Cola Limited	Hong Kong	Food and Beverage Processing
Ronald Lu & Partners	Hong Kong	Professional Services
Swire Properties Limited	Hong Kong	Real Estate
Alaya Consulting Ltd.	Hong Kong	Professional Services
HK Electric Investments (HKEI)	Hong Kong	Electric Utilities and Independent Power Producers and Energy traders
ZHEJIANG MAYANG INDUSTRIES CO.,LTD	China	Building Products
Weihai Luda Art & Craft Co., Ltd.	China	Trading Companies and Distributors, and Commercial Services and Supplies
JD Logistics	China	Air Freight Transportation and Logistics
Lenovo	China	Technology Hardware and Equipment
Taiwan Mobile Co., Ltd	Taiwan, Province of China	Technology Hardware and Equipment
Asia Cement Corporation	Taiwan, Province of China	Construction Materials
TCI Co., Ltd.	Taiwan, Province of China	Pharmaceuticals, Biotechnology and Life
Taiwan Cement Corporation	Taiwan, Province of China	Construction Materials
Far EasTone Telecommunications Co., Ltd.	Taiwan, Province of China	Telecommunication Services
LITE-ON technology corp.	Taiwan, Province of China	Technology Hardware and Equipment
Delta Electronics	Taiwan, Province of China	Technology Hardware and Equipment

Science Based Target – Greater China

Companies	Target	Scope 1, 2 target method	Scope 1, 2 target	Scope 3 target method and target
AEC*	Well below 2°C	Absolute	30%	N/A
Swire Coca-Cola Limited	1.5°C		70%	Absolute, 30%
Ronald Lu & Partners	Well below 2°C		21%	Absolute, 8%
Swire Properties Limited	2°C	SDA: Physical	35%	SDA: Physical, 28%
Alaya Consulting Ltd.	2°C		47%	Absolute, 7%
HK Electric Investments	2°C		30%	N/A

*For SMEs

Science Based Target – China

Companies	Target	Scope 1, 2 target method	Scope 1, 2 target	Scope 3 target method and target
ZHEJIANG MAYANG INDUSTRIES CO.,LTD*	Well below 2℃	Absolute	30%	Measure and Reduce
Weihai Luda Art & Craft Co., Ltd.*	Well below 2℃		28%	Measure and Reduce
JD Logistics	1.5℃		50%	Absolute, 50%
Lenovo	1.5℃		50%	SDA: Physical, 25%

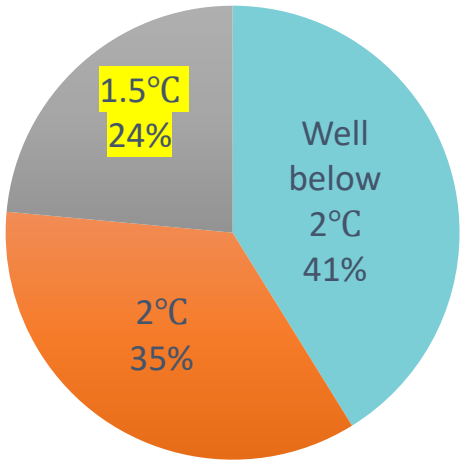
*For SMEs

Science Based Target – Taiwan

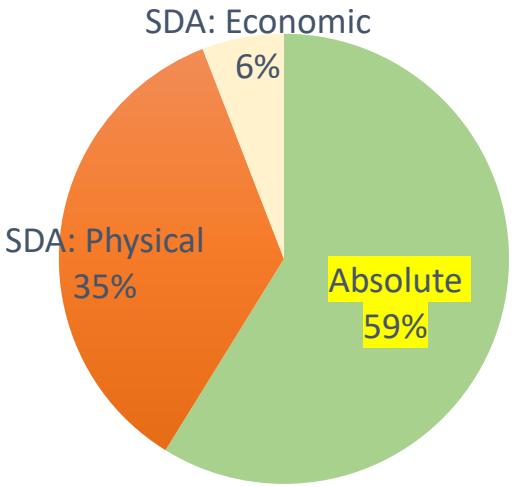
Companies	Target	Scope 1, 2 target method	Scope 1, 2 target	Scope 3 target method and target
Taiwan Mobile Co., Ltd	Well below 2℃	Absolute	30%	Absolute, 15%
Asia Cement Corporation	Well below 2℃	SDA: Physical	8%	N/A
TCI Co., Ltd.	1.5℃	Absolute	**51%**	Absolute, 15%
Taiwan Cement Corporation	Well below 2℃	SDA: Physical	11% & 32%	N/A
Far EasTone Telecommunications Co., Ltd.	2℃	Absolute	20%	Absolute, 17%
LITE-ON technology corp.	2℃	SDA: Physical	39%	SDA: Physical, 29%
Delta Electronics	2℃	SDA: Economic	**56.6%**	Absolute, 20%

Science Based Target – Greater China

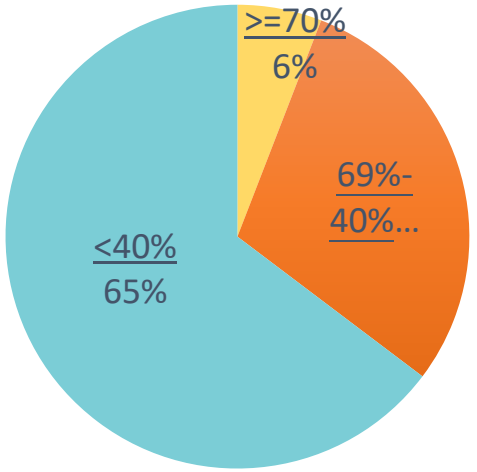
SBT



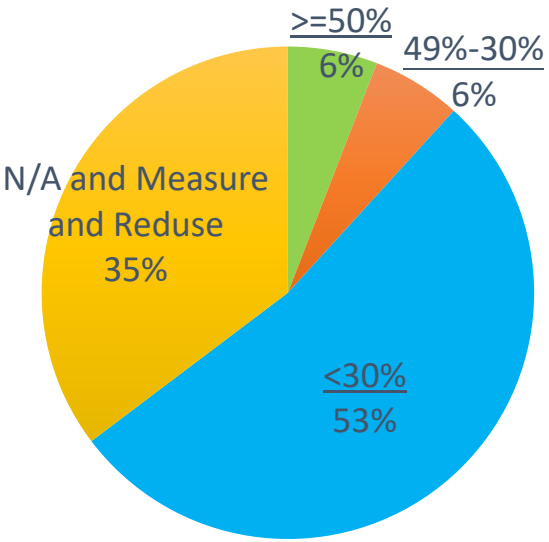
Target Method for Scope 1 and 2



Scope 1 and 2 target



Scope 3 target



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Science-based Target Setting

What sector(s) do struggle most to set and meet the SBTI targets?

The low participation rates are from the GHG-intensive sectors, such as aluminum, pulp and paper, as well as iron and steel, mainly because those are not consumers-facing companies.

Understand SBT setting methods and components

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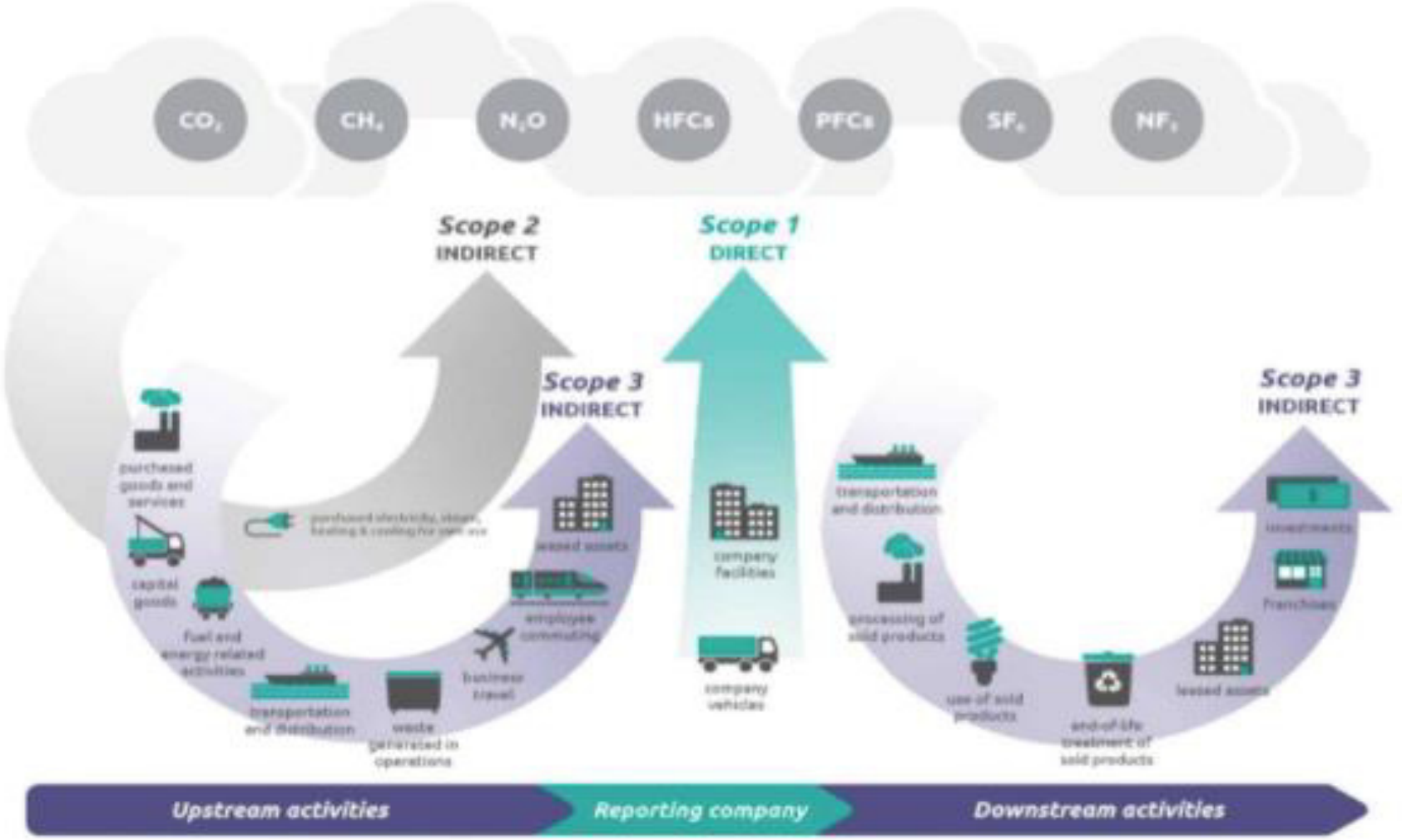
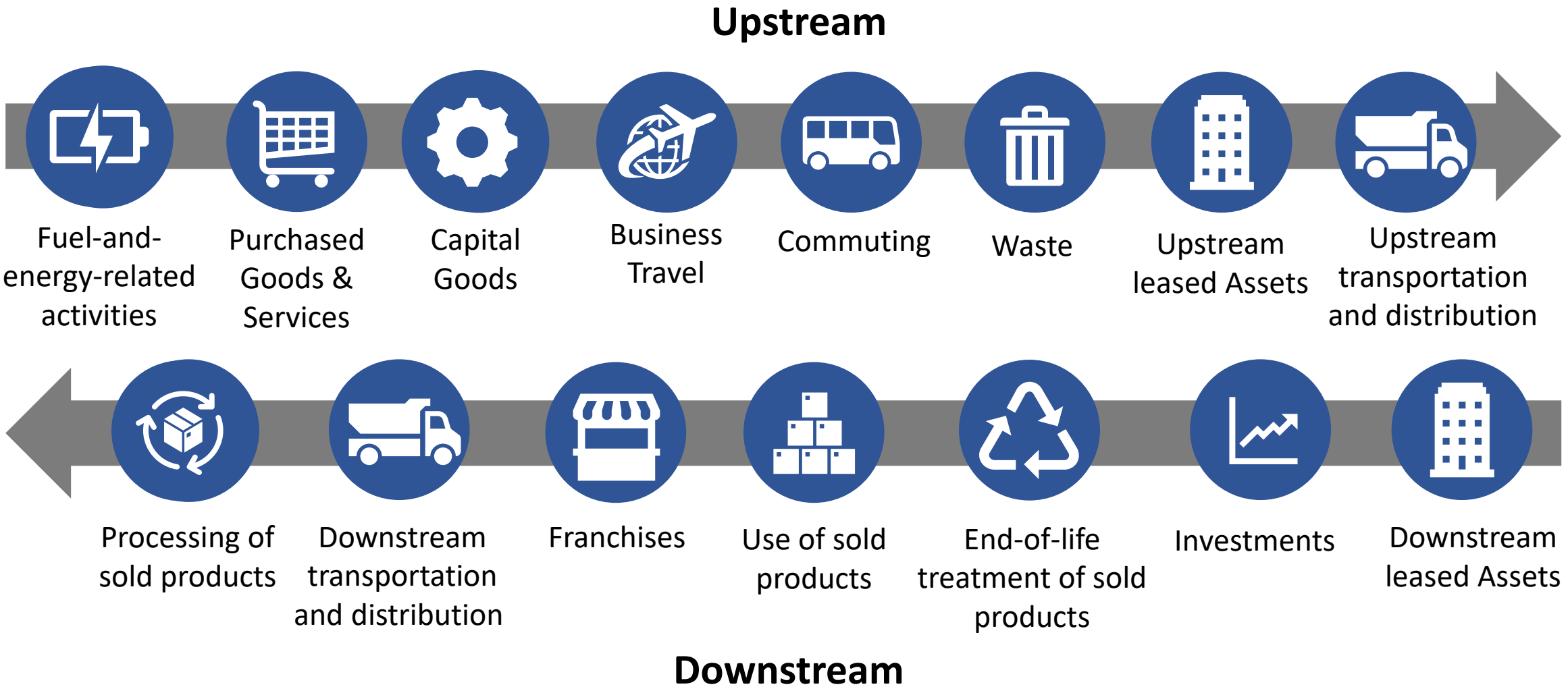
GHG Protocol – scopes diagram



Source: GHG Protocol

15 categories of scope 3



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Building Trust Through Narrative

An Overview of Real Estate Sector

65 Companies have approved science-based targets

11 Companies in Asia have approved science-based targets

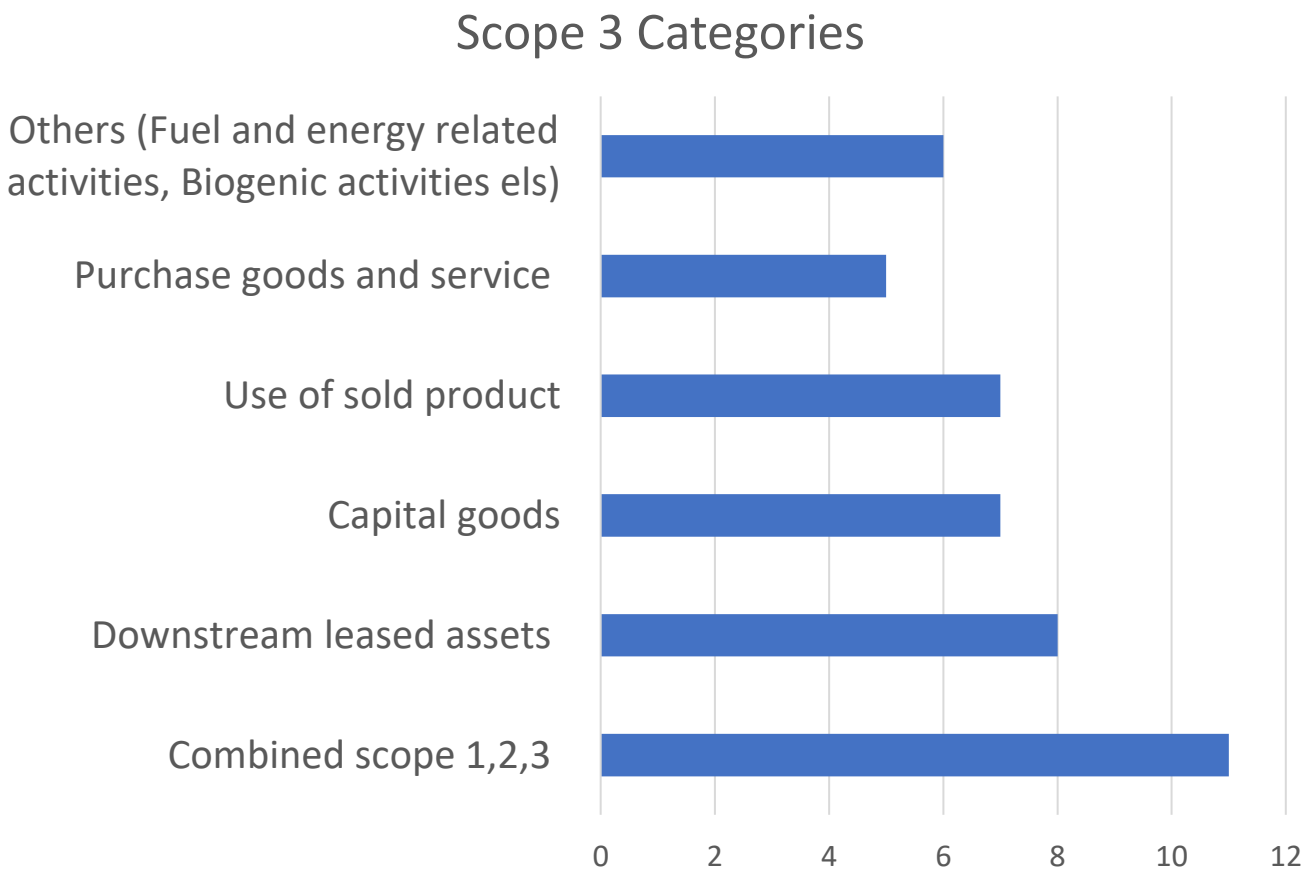
1 Company in Hong Kong has approved science-based targets

Tokyu Fudosan Holdings Corporation	VIEW TARGET	Targets Set	★	1.5°C	Japan	Asia	Real Estate
MITSUI FUDOSAN CO., LTD.	VIEW TARGET	Targets Set		Well-below 2°C	Japan	Asia	Real Estate
Nomura Real Estate Holdings, Inc.	VIEW TARGET	Targets Set		Well-below 2°C	Japan	Asia	Real Estate
CapitaLand	VIEW TARGET	Targets Set		Well-below 2°C	Singapore	Asia	Real Estate
Mahindra Lifespaces Developers Limited	VIEW TARGET	Targets Set		1.5°C	India	Asia	Real Estate
Mahindra World City (Jaipur) Ltd.	VIEW TARGET	Targets Set		1.5°C	India	Asia	Real Estate
Mahindra World City Developers Ltd	VIEW TARGET	Targets Set		1.5°C	India	Asia	Real Estate
Swire Properties Limited	VIEW TARGET	Targets Set	★	2°C	Hong Kong	Asia	Real Estate

Usually Seen Sources of Emissions

Scope 1	Scope 2	Scope 3
Stationary combustion sources	Purchased energy for provision of services in common areas of our office, retail and residential properties	Downstream leased assets
Mobile combustion sources		Capital goods, including construction materials
Fire extinguishers		Use of sold products
Refrigerants		Purchased goods and services
		Fuel and energy-related activities
		Others e.g. biogenic activities
Direct emissions from sources controlled by the organisation	Indirect emissions from the generation of purchased energy	Other indirect emissions from sources not controlled by the organisation

An Overview of Real Estate Sector



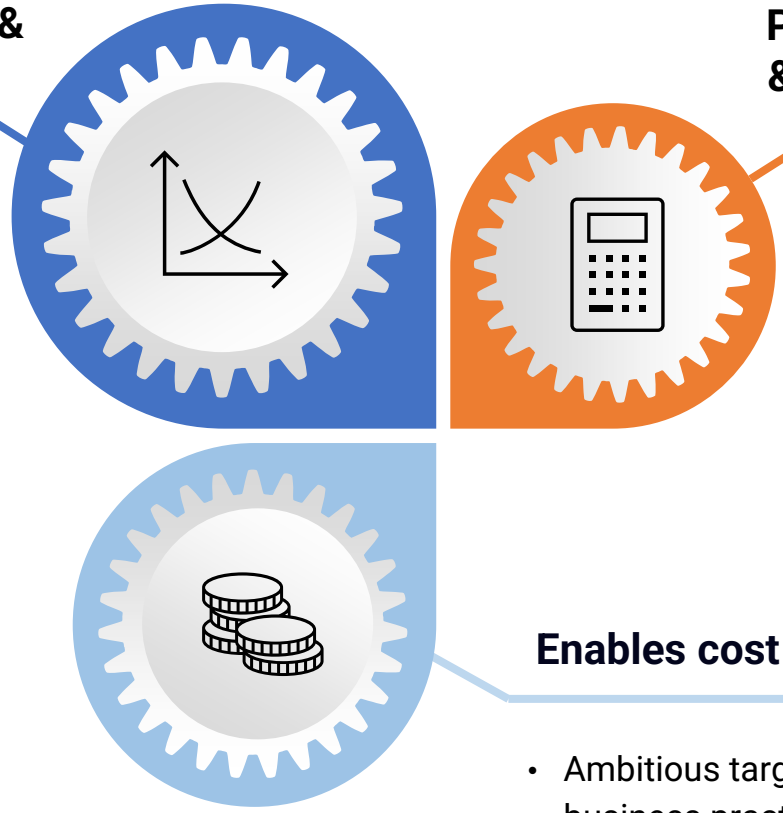
- Combining Scope 1, 2 and 3 has been the most popular method

➔ Due to various activities has involved, **combining Scope 1,2,3 might be an ideal move**

Benefits of setting SBTs

Ensures profitability & competitiveness

- Increasing consumer preference for sustainable business practices
- CDP data analysis: companies with published emissions targets were more profitable than those with no targets
- Suppliers more attractive if they have GHG reduction initiatives



Provides financial protection & maintains access to capital

- Companies that act now will be ready for changing regulations and public policy
- Strengthen investor confidence and company's credibility
- Leading on decarbonisation earns reputational rewards

Enables cost reductions

- Ambitious targets drive innovation and transform business practices
- Avoided costs from reducing use of increasingly expensive raw materials

Case Study - Swire Properties

First real estate developer in Hong Kong and mainland committed to SBTi
First real estate developer in Hong Kong committed to 1.5°C target

太古地產 SWIRE PROPERTIES

Scope 3 target by categories

Swire Properties' SBT (approved in 2019)

Scope 1 and 2 GHG Emissions Intensity	Scope 3 GHG Emissions Intensity	Scope 3 GHG Emissions Intensity
↓ 35 % per sqm, by 2025	Downstream Leased Assets	Capital Goods
↓ 52 % per sqm, by 2030	↓ 28 % per sqm, by 2030	↓ 25 % per sqm, by 2030
from a 2018 baseline	from a 2018 baseline	from a 2016-2018 baseline

Source: https://sd.swireproperties.com/2020/en/performance-environment/climate-change/making-progress-towards-our-science-based-targets

Cat 13: Downstream Leased Assets

- Tenant operations powered by 100% **renewable electricity**
- Improve tenants' **energy use intensity**

Physical intensity target

Cat 2: Capital Goods

- **Low-carbon procurement**
- **Platinum-certified concrete**
- **Battery storage system** to power tower cranes

Alaya Consulting 本源顧問

Benefits of setting SBTs

Named a **"Top 10" green bond issuer** globally by Climate Bonds Initiative for our green bond reporting work

Financial Institutions

Sustainability-Linked Loan (SLL)

- 2019: HK$500 m, first in Hong Kong to launch a financing mechanism that ties with year-on-year SD performance improvement targets
  - retain listing on DJSI World
  - reduction in energy intensity
- 2020 : Launched 3 more SLLs, totalling HK$3B, and a HK$1B green loan

Green Bonds

- 2018: First certified US$500 m green bond in Hong Kong that obtained the Green Finance Certification from Hong Kong Quality Assurance Agency (HKQAA)
- 2020 : Launched a few more green bonds, totalling HK$1,934 m

Investors

Green Buildings | Climate Change Adaptation | Energy Efficiency | Renewable Energy | Sustainable Water and Wastewater Management

Positive Impact to the Environment and Our Future Developments

Green Finance Reports (2018 - 2020)

Source: Swire Properties Limited

Benefits of setting SBTs

Existing Buildings	New Buildings	Tenant Engagement
▪ Monitoring-based commissioning of HVAC system & energy audits ▪ Adoption of high-efficiency technologies, e.g. electronically-commuted (EC) motor plug fans	▪ Green building certifications ▪ Passive design ▪ Structural optimisation ▪ Minimise embodied carbon via low-carbon material selection	▪ Free energy audits for tenants ▪ Green Kitchen Initiative – technical guidelines & award scheme ▪ Green Shop Alliance Awards ▪ Tenants' employee engagement programme

▪ Cloud-based smart energy management platform for global portfolios
▪ Artificial intelligence / machine learning for continuous energy optimisation
▪ Investment in on/off-site renewable energy

Joint Research Centre for Building Energy Efficiency and Sustainability

清華大學 Tsinghua University

10+ years partnership with Tsinghua University through the Joint Research Centre

Over 105M kWh

energy savings

Source: Swire Properties Limited

Benefits of setting SBTs

Onsite Renewable Energy

Generated by **solar photovoltaic (PV) panels** and tri-generation and absorption chiller system

Hong Kong

135,500 kWh

Combined PV system & green roof

>500,000 kWh[1]

One Taikoo Place

HK's 1st bio-diesel powered tri-generation and absorption chiller system in commercial building

Beijing

200,000 kWh

INDIGO

4,000 kWh

Taikoo Li Sanlitun

Guangzhou

32,700 kWh

Taikoo Hui

Offsite Renewable Energy Procurement

Two developments powered by 100% renewable electricity

Chengdu

~35,600 MWh

Sino-Ocean Taikoo Li Chengdu

Sourced **100% offsite renewable electricity supply** since 2020 to achieve net-zero emissions

Guangzhou

~57,690 MWh[2]

Taikoo Hui

Sourced **100% offsite renewable electricity supply** since 1 July 2021 to achieve net-zero emissions

Source: Swire Properties Limited

The importance of scope 3

- Scope 3 emissions tend to account for the majority of emissions of a business
- NZTs: In today's net-zero target setting landscape, scope of covered emissions is uneven and inconsistent as some companies set net-zero at the Scope 1 or Scope 2 level, or only in some geographical locations
- SBTs: Scope 3 must be covered in most cases
- Crucial to look at those emissions in order to set accurate targets

  1. Understand your current data collection and reporting processes to identify the gaps in data

  2. Utilize guidance and resources

  3. Assess relevance of the 15 GHG Scope 3 categories to make sure that you capture the right emissions

  4. Plan data collection methods and calculations approaches with the correct emission factors

The importance of scope 3

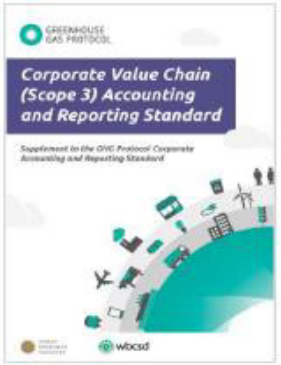
- **Stakeholder expectations continue to rise**
  - SBTi – Requirement to set Scope 3 targets
  - CDP and most disclosure schemes are seeking Scope 3 data
  - The FCA recently closed a consultation on changes to the UK Listing Rules proposing that all companies listed on the main market(1) should report under TCFD on a 'comply or explain' basis in relation to financial years ending on or after 31 December 2021
- **Accept that the accuracy of Scope 3 reporting will not be perfect**
  - It will improve over time as more specific data becomes available
  - Track and report year on year changes resulting from reduction actions or simply improving quality of the footprint data

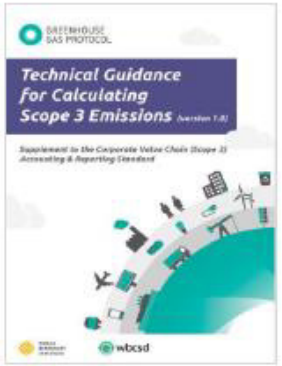
- ***The quality of Scope 3 needs to be good enough to identify priority areas and implement the right decisions.***

SBT – data requirements

- **Scopes:** Must cover Scope 1 and 2, and for companies with Scope 3 emissions covering more than 40% of total emissions, must also include Scope 3
- **Ambition:** Minimum level of ambition is 2 degrees
- **Flexibility:** Can exclude up to 5% of scope 1 and 2 emissions combined in the boundary of the inventory and target
- **GHGs:** Must cover all relevant GHGs per the GHG protocol
- **Level:** Recommended to set at the group-level (less granular)
- **Carbon compensation, removal and offsets:** must not be counted as emissions reductions
- **Data quality:** must have data verified during the approvals process of the target
- **Progress and updates:** target must be adjusted throughout the progress
- **Data gaps:** allows but does not recommend estimations/modelling

GREENHOUSE GAS PROTOCOL

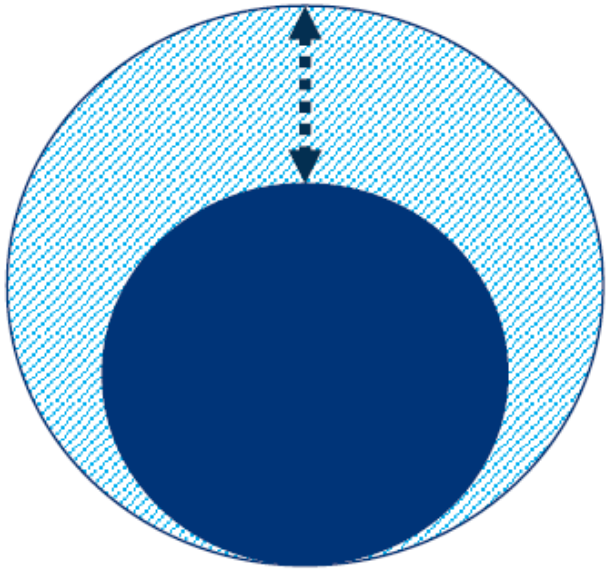




Three key steps in calculating a SBT

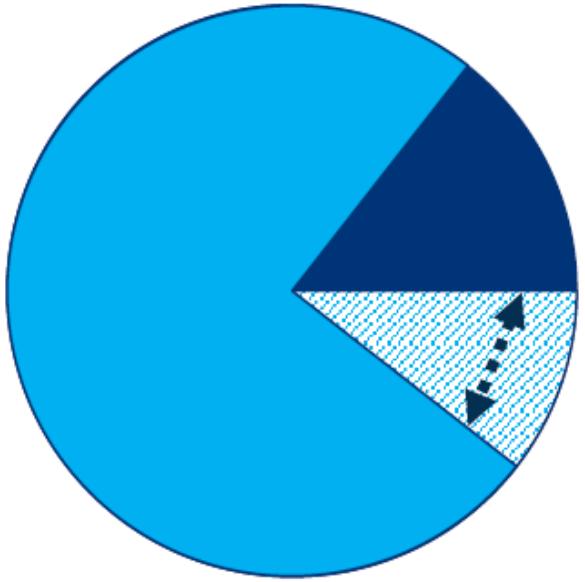
1. Assessing the global carbon budget

How large is the pie?



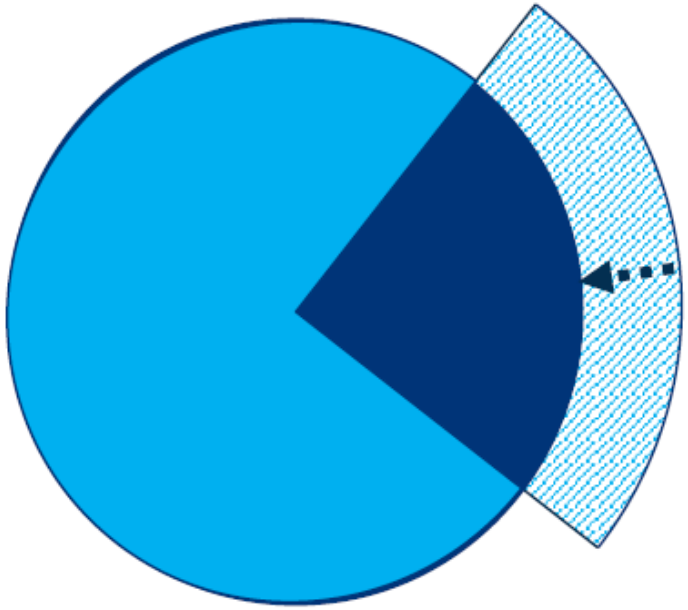
2. Calculating your business' carbon budget

How large is my slice?



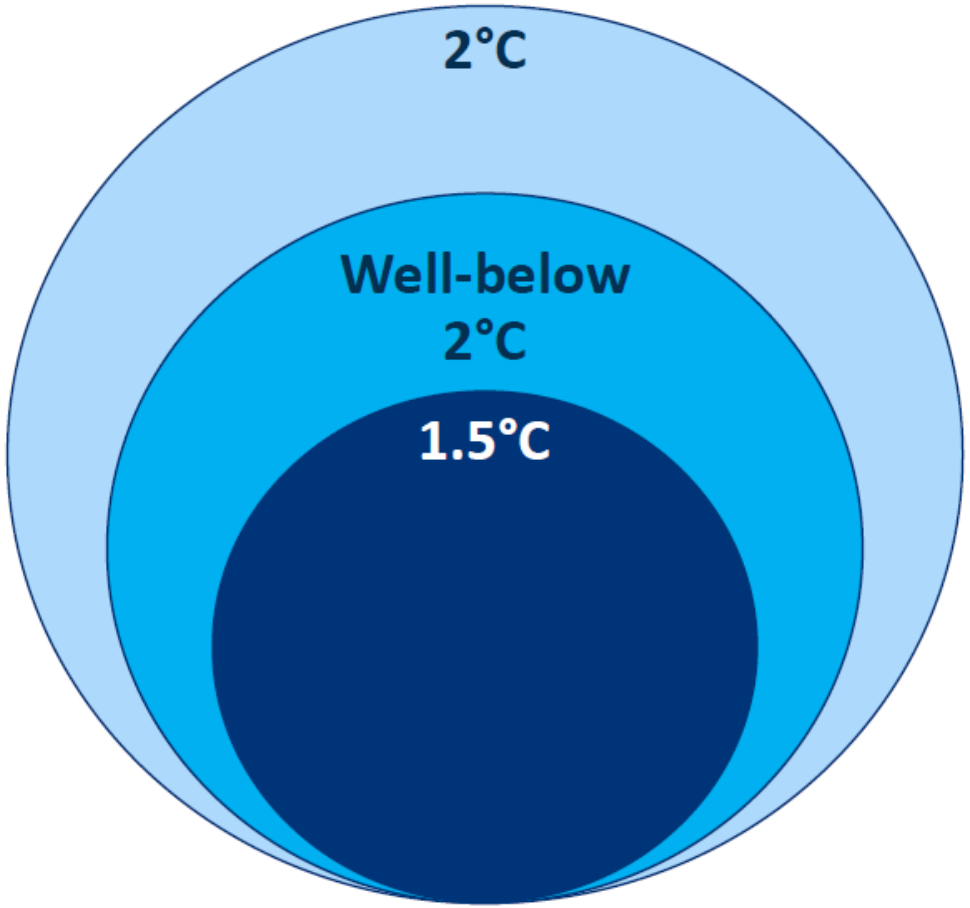
3. Compare your budget and your footprint

Am I eating too much?



Different Emissions Scenarios

Scenario



Description

- Limiting warming to 2°C is not longer accepted by the SBTi
- "Well-below 2°C" is equivalent to 1.75°C
- **1.5°C is current best practice**

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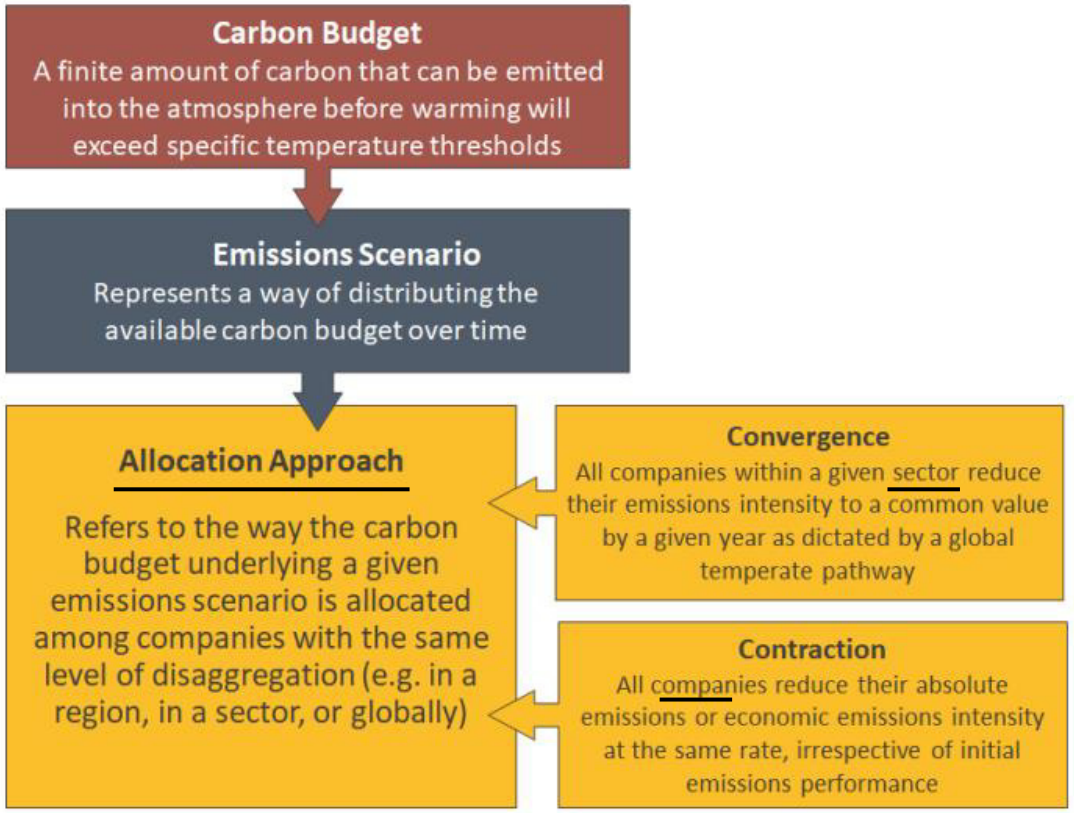
Target setting method

Figure 3-1. Main Elements of Methods for Setting SBTs



Sectoral Decarbonisation Approach (SDA)

- Setting physical target which takes sector specific mitigation potentials and projected growth into account
- Underlying scenario: beyond 2°C approach
- Fixed activity indicator of intensity target (depends on sector)

Absolute Emissions Contraction

- All companies reduce their absolute emissions at the same rate, irrespective of initial emissions performance
- An absolute emissions reduction target is defined in terms of an overall reduction in the amount of GHGs emitted to the atmosphere by the target year, relative to the base year
- Underlying scenario: well below 2°C and 1.5°C approach
- Companies can convert the absolute target into an intensity target with custom activity indicator

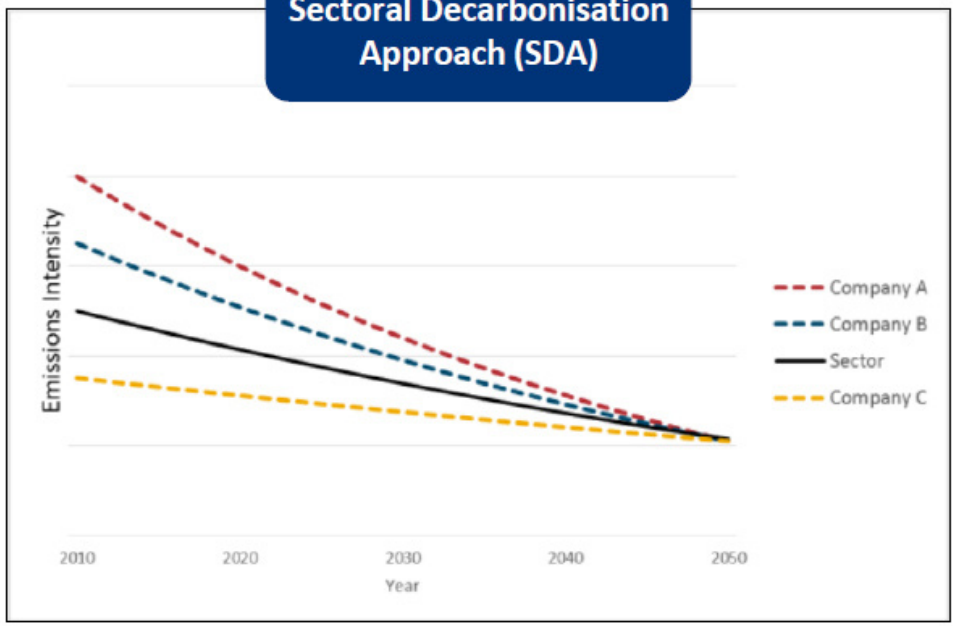
SBTi Target Setting Manual pg 19

Different methodology

Absolute Contraction

- Same reduction pathway for all companies within a given timeframe
- Suitable for mixed, heterogeneous sectors
- Can be used for both:
  - Well-below 2°C (2.5% linear reduction / year)
  - 1.5°C (4.2% linear reduction / year)

Sectoral Decarbonisation Approach (SDA)



- Reduction pathways based on emissions intensity
- Reduction pathways different by sector and recognises current position – i.e. accounts for investments already made
- Currently only available for well-below 2°C

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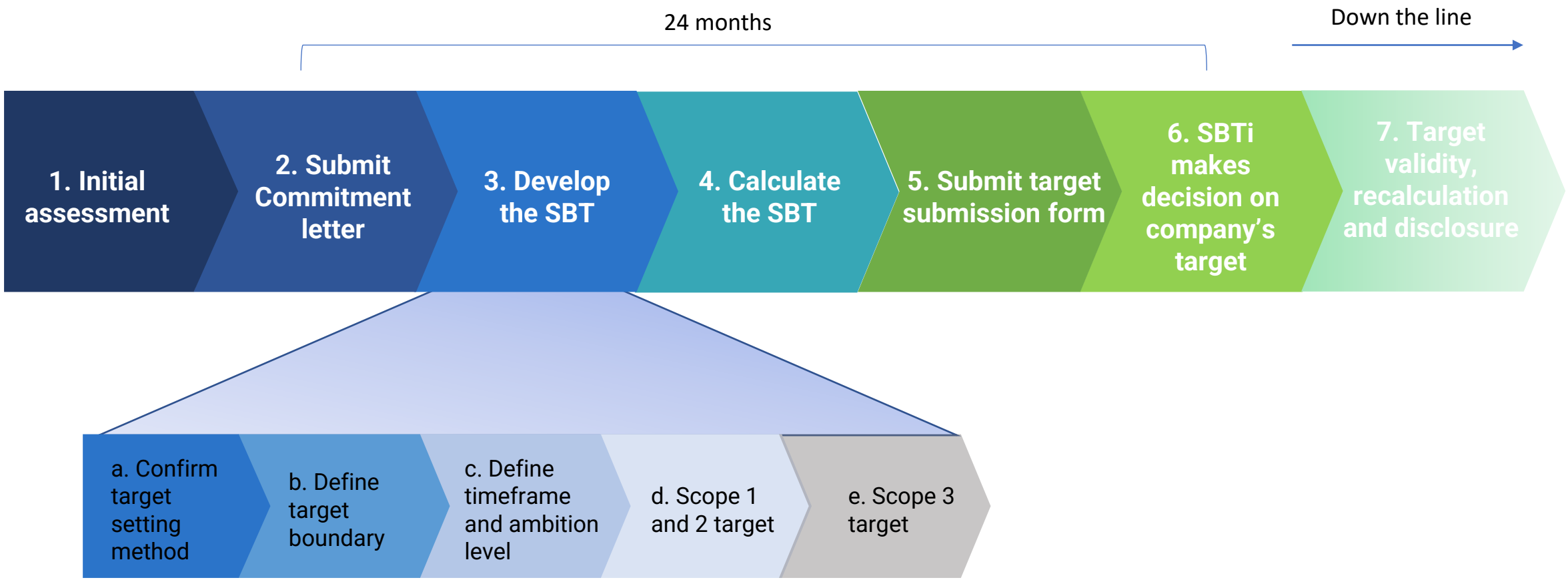
Target Setting Process

- **Boundary**
  Company-wide Scope 1 and 2 emissions (as well as Scope 3 if it constitutes more than 40% of total)
- **Timeframe**
  From date of announcement, 5-10 years
- **Reporting**
  Publicly disclose its company-wide GHG emissions inventory and progress against their targets on an annual basis
- **What are the associated costs?**
  From 2019, target validation services will be charged (USD 5000 for two assessments)

Target setting for standard commitment

Process Overview



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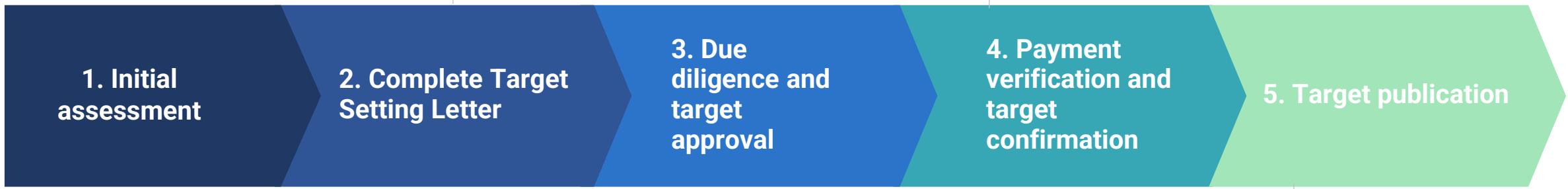
Target setting for SMEs



SMEs are required to complete a recent, comprehensive GHG emissions inventory following the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard and Scope 2 Guidance.

Companies are required to describe the activities generating scope 1 and 2 emissions

Review, sign and send a digital copy of the letter in PDF format to SBTi

Incomplete information or inconsistencies will cause a delay in the overall process

Invoicing and fee payment (one-time fee of USD 1,000 (+ applicable VAT))

If approved, companies are required to publicly report their company-wide scope 1 and 2 GHG emissions inventory and progress against published targets on an annual basis

The targets will be published on the SBTi website as well as partner websites at CDP and We Mean Business.

SMEs who are engaging in the UN Global Compact will also be recognized on this website

Alaya Consulting

Science Based Target

Q: For 1.5C alignment according to SBTi only absolute contraction is the only method? Sectoral Decarbonisation Approach is not applicable for the 1.5C scenario?

A: The SBTi target setting tool currently considers WB2C and 1.5C aligned pathways. The 1.5C scenario is available for the absolute contraction method and the 1.5C scenario using SDA is only currently available for the power sector only.

Where to start?

1 **Target applicability and ambitions**

- Assess the applicability of the different target types and approaches
- Understand and define your organization's level of ambition

2 **Utilise guidance and resources**

- SBTi: Corporate Manual
- SBTi: Foundations for Science-Based Net-Zero target setting in the corporate sector
- SBTi: Best Practices in Scope 3 Management

Where to start?

3 **Review your current data collection and reporting processes**

- Scopes 1, 2 and 3 categories
- Data coverage and quality
- Identify the gaps and improvement opportunities

4 **Calculate and set an emissions baseline**

- Focus on the material impact areas e.g. Scope 3 screening
- Map categories across your organization and value chain
- Primary data vs. estimations (in line with target requirements)
- Emissions factor selection (location-based, supplier-specific, supply chain spend, LCAs)

Where to start?

5 **Implement a robust and ongoing data collection and calculation strategy**

- Work towards accuracy and coverage
- Ensure initiatives savings and associated savings are tracked
- Develop your approach to offsetting and monitor projects
- Schedule and plan third-party verification
- Use a system to streamline the process

6 **Report on progress**

- Disclose transparent progress against targets
- Ensure internal engagement and communication
- Country / Site / BU level performance breakdowns
- Review targets and baseline annually to ensure alignment (e.g. COVID19 impact)

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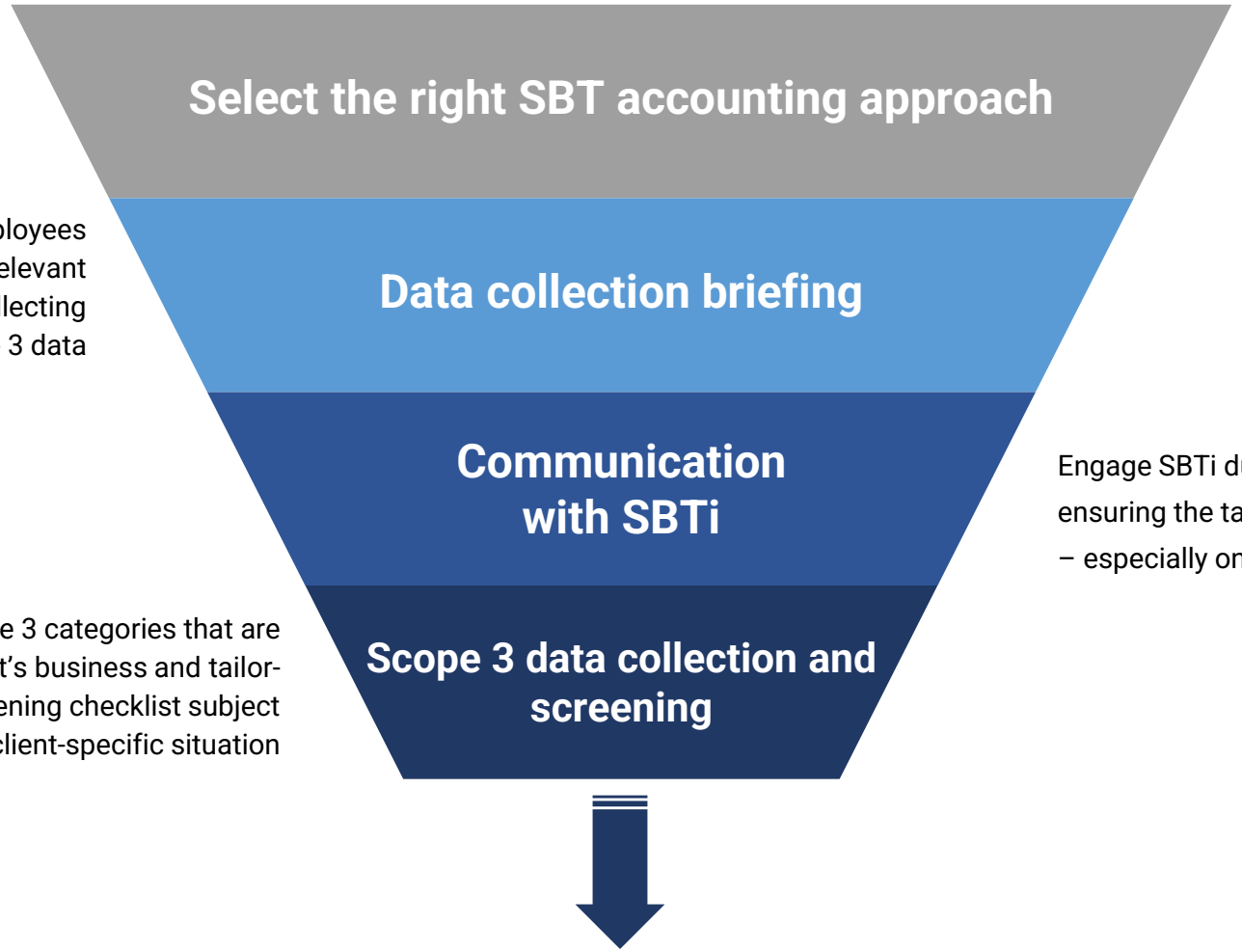
SBT challenges

1. Data accuracy challenges
2. Boundaries of the targets
3. Baseline setting
4. Application of the data
5. Tracking of initiatives
6. Tracking of offsets

Lessons learned from our experiences



Selecting the right approach offers higher flexibility in formulating carbon reduction strategy

Data collection training/briefing to employees is a must since they may not possess relevant knowledge and experiences in collecting scope 3 data

Engage SBTi during the target-setting process, ensuring the target fulfills SBTi's requirements – especially on scope 3 emissions

Consider scope 3 categories that are related to the client's business and tailor-made scope 3 screening checklist subject to client-specific situation

Aiming to set an ambitious yet attainable SBT

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Science-based Target Setting

Situation

Top Form International is an original equipment manufacturer (OEM) of bras, recognized as one of the leading OEM brassiere manufacturers in the world. With its corporate office based in Hong Kong, the company has manufacturing sites across China, Thailand and Cambodia. Facing increasingly stringent ESG disclosure requirements, and to strengthen competitive advantages by setting a carbon reduction target, the company believes there is a huge upside for establishing its science-based targets (SBT), which are essential for instilling confidence in investors.

Challenge

According to Science-based Target Initiative (SBTi), if a company has over 40% of its total GHG emissions coming from Scope 3, then a target on Scope 3 must be set. One of the challenges would be to ascertain if Top Form meets the threshold. Besides, given the multiple manufacturing locations, emission data for each region have to be compiled so as to analyze the sources and levels of emissions.

With that said, the biggest challenge would be to set an appropriate SBT to follow and commit to, taking into consideration the constantly changing compliance regulations, alongside immense pressure from various parties urging Top Form to further enhance sustainability of its operations. On one hand, investors are becoming increasingly wary of sustainability, demanding better practices and more transparent disclosures; on the other hand, competitors are continuously enhancing their ESG performances. Nonetheless, difficulties in communicating the company's commitment to clients and stakeholders may also lead to its efforts going unnoticed.

Solution

Top Form commissioned Alaya Consulting to advise on SBT setting due to its solid track record in setting and tracking SBT. Alaya has taken the four-step process in setting targets. First, by collecting GHG emission data including a Scope 3 screening, Alaya would be able to get hold of the full picture of GHG inventory. This is followed by the selection of baseline and target years, according to the company's projected growth rate. The third step entails setting an appropriate target in line with Absolute Emissions Contraction. Lastly, Alaya would determine a SBTi target for Top Form's approval. ***Throughout the entire target-setting process, Alaya would provide consistent support and maintain regular updates with Top Form, ensuring that a SMART (specific, measurable, attainable, relevant and timely) SBT is being set.***

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Science-based Target Setting

How should a new fashion start up, with a focus on sustainable products, commit to SBTs? We have no historical data nor many reduction opportunities?
You may start by calculating the GHG inventory in-line with the GHG Protocol. The guidance and relevant resources for the apparel and footwear sector can be found here:
https://sciencebasedtargets.org/sector-development/apparel-2/

Can we off set emissions by buying carbon credits / renewable electricity?
Offsets are not recognized as one of the strategies to set the SBTs. Renewable energy instruments such as renewable energy certificates (RECs) should only be used to meet reductions of scope 2 emissions using the market based approach. Please see the GHG Protocol Scope 2 Guidance for further guidance on scope 2 accounting.

Net-zero target

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Net Zero Standard

- SBTi's Standard clarifies that rapid action to **halve emissions before 2030 and long-term deep emissions cuts of 90-95% before 2050** are crucial for net-zero targets to align with science.
- To achieve net-zero with the SBTi, emissions that are not possible to cut - the final 5-10% - have to be neutralized through carbon removals.
- Companies should invest in climate mitigation beyond their value chains on the road to net-zero, but this must be in addition to, not instead of, deep emission cuts in line with science.

Net Zero Standard

SBTi Governance | SBTi Staff | External advisors

Governing bodies

Executive Board

United Nations Global Compact · World Resources Institute · WWF · CDP · We Mean Business

- Provide partner input on **governance and strategy**
- Actively **engage in ratifying leadership and standard decisions**[1]

Steering Committee

- Operates as de-facto standards/tech board
- Final decision authority on **technical criteria and methods**
- To be replaced ultimately by an independent Standards Board

Managing Director

- Decision authority **on strategy and implementation** in consultation with the board

Advisory bodies

Standing bodies

Technical Advisory Group

Diverse group of corporate sustainability experts – inputs only

Scientific Advisory Group

Diverse group of climate change mitigation scientists – inputs only

NZ project specific

Net Zero Expert Advisory Group

Diverse group from civil society, academia and industry. **Main consensus body for NZ criteria and key for external input.**

Project Execution team

NZ Project Team

- **Coordinates the NZ development process** across the multiple stakeholders driving the cadence from draft through to rollout

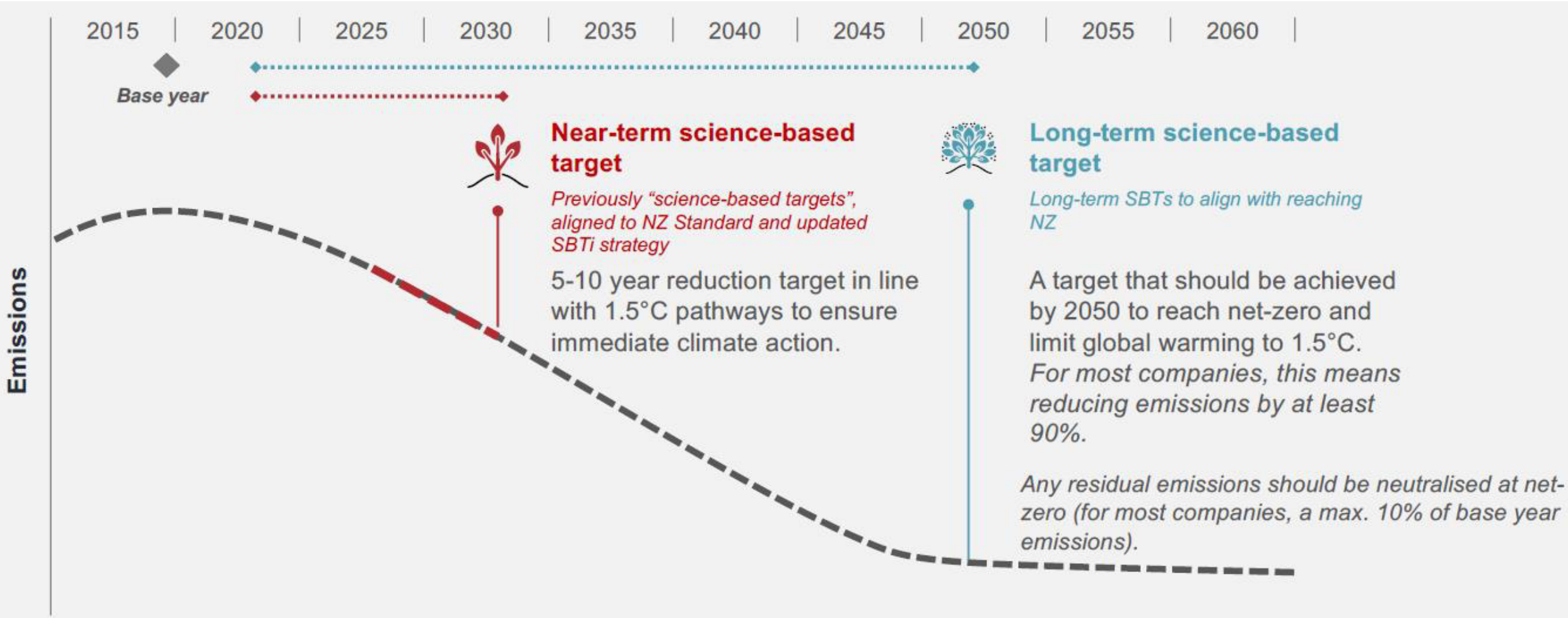
NZ Working Group

- Made up of the 4 Partner NGOs and **setup for quality assurance and consensus building** internally

SBTi Technical Team

- Internal technical team to **develop methods and criteria**

Key Elements of the Net-Zero Standard



In the transition to net-zero: Companies are encouraged to take action or make investments to mitigate emissions beyond their value chains, e.g., purchasing high-quality, jurisdictional carbon credits that support countries achieving their nationally determined contributions

Key Elements of the Net-Zero Standard

First things first...

Emission reductions are key to transition to global net-zero

1

- Complete emission inventory following GHG Protocol
- Set near- and long-term science-based targets to reduce value-chain emissions
- Implementation of climate mitigation strategy
- Disclose target progress annually

...while also recognising need to go further

Investments and actions to mitigate emissions outside a company's value chain can accelerate the transition to global net-zero.

2

- In the near-term, companies are encouraged to make or invest in a variety of mitigation actions that go further than their SBTs
- In the long-term, companies must neutralise all residual emissions with equivalent removals

SBTi proposed definition of net-zero emissions

- 'To reach a state of net-zero emissions for companies implies two conditions:
  1. To achieve a scale of **value-chain emission reductions** consistent with the depth of abatement achieved in pathways that **limit warming to 1.5°C** with no or limited overshoot and;
  2. To neutralise the impact of any source **of residual emissions** that remains unfeasible to be eliminated by **permanently removing an equivalent amount of atmospheric carbon dioxide**.'

SBTi proposed definition of net-zero emissions

Net-Zero Targets	Science-Based Targets
• Based on IPCC's scientific knowledge • Imbedded in the Paris Agreement, aligned with a below 1.5 or 2 degrees target • SBTs or reduction strategy + Carbon offsets/removal • Less strict than SBTs, does not trigger a validation process as of today • Long term target (15 years +) • Not all NZTs are SBTs	• Based on IPCC's scientific knowledge • Imbedded in the Paris Agreement, aligned with a below 1.5 or 2 degrees target • Rigorous process that requires validation by the SBT Initiative • Validated through current scientific methods, more strict • Short-term target (5-15 years) • Highly recommended to set for NZTs

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Thank you!