Measuring and disclosing on financed emissions and target setting

CDP
DISCLOSURE INSIGHT ACTION

PROGRAMME

CDP introduction | Sam Cheung, CDP

Overview of the Portfolio Impact module | Christian Lonnqvist, CDP

- Q&A

Partnership for Carbon Accounting Financials (PCAF) | Tiange Wei, PCAF

- Q&A

Science-based targets for financial institutions | Eoin White, CDP SBTi

- Q&A

CDP introduction

ABOUT CDP

CDP is a global environmental impact non-profit working to secure a thriving economy that works for people and planet.

CDP runs the global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts.

With the world's most comprehensive collection of self-reported data, the world's economy looks to CDP as the gold standard of environmental reporting.

Its network of investors, purchasers and policymakers around the globe, use our data and insights to make better-informed decisions.

HOW WE WORK

CDP data informs capital markets & policy makers on environmental challenges and opportunities

Data & analysis

TCFD aligned corporate responses

Modelled GHG emissions data

Temperature ratings

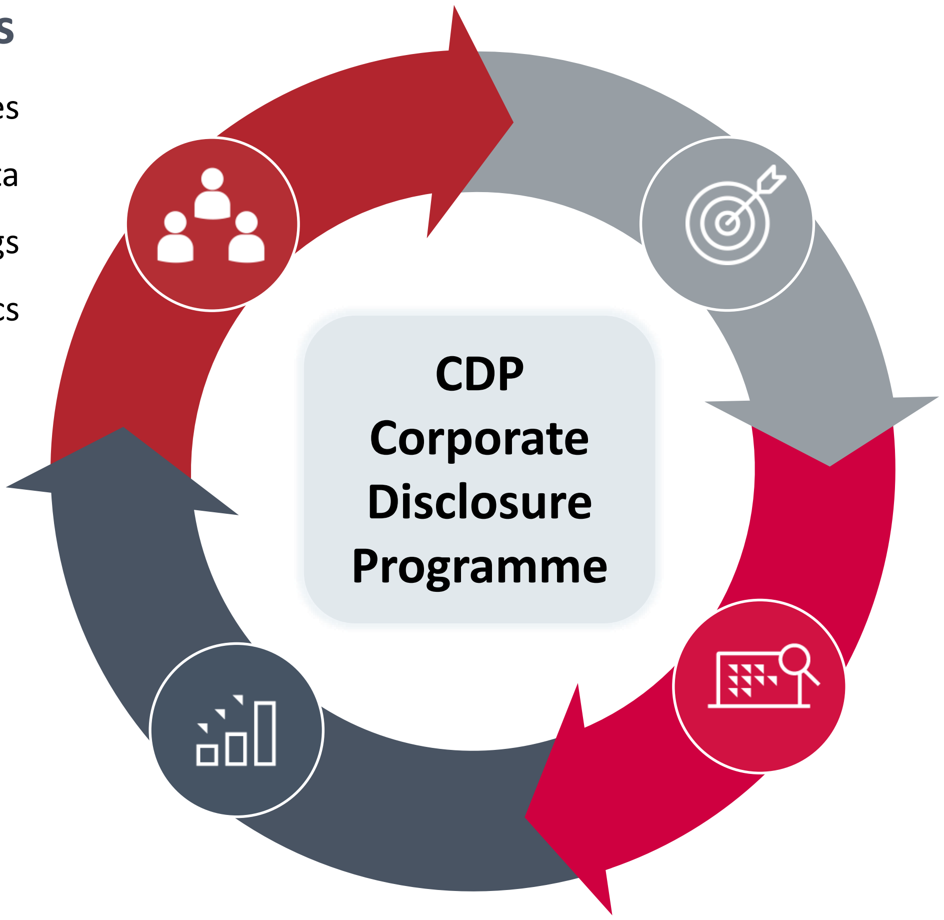
Climetrics

Requesting authorities

Investor & capital markets signatories

Supply chain members

Pilot programmes: fixed income; private markets; banks programme



Questionnaires

Thematic focus

Sector focus

Alignment to international best practices

Targeted companies

Large cap listed companies

Supply chain

High impact sectors

CDP IS FEEDING THE ESG ECOSYSTEM

CDP
DISCLOSURE INSIGHT ACTION

POWERED BY CDP DATA

ISS
Bloomberg
CalPERS
CLARITY AI
V.E
MSCI ESG Research
TRUCOST
VERITY PLATFORMS
Climetrics The Climate Rating for Funds
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION
ACT ASSESSING LOW CARBON TRANSITION®
World Benchmarking Alliance

FTSE Russell
S&P Global
EURONEXT
Dow Jones Sustainability Indexes
NIKKEI
STOXX
Deutsche Börse Group
BNP PARIBAS ASSET MANAGEMENT
BLACKROCK®
cpr asset management
Walmart
Goldman Sachs

IMPACT IN 2021

600+ investor & capital market signatories with US$110 trillion in assets

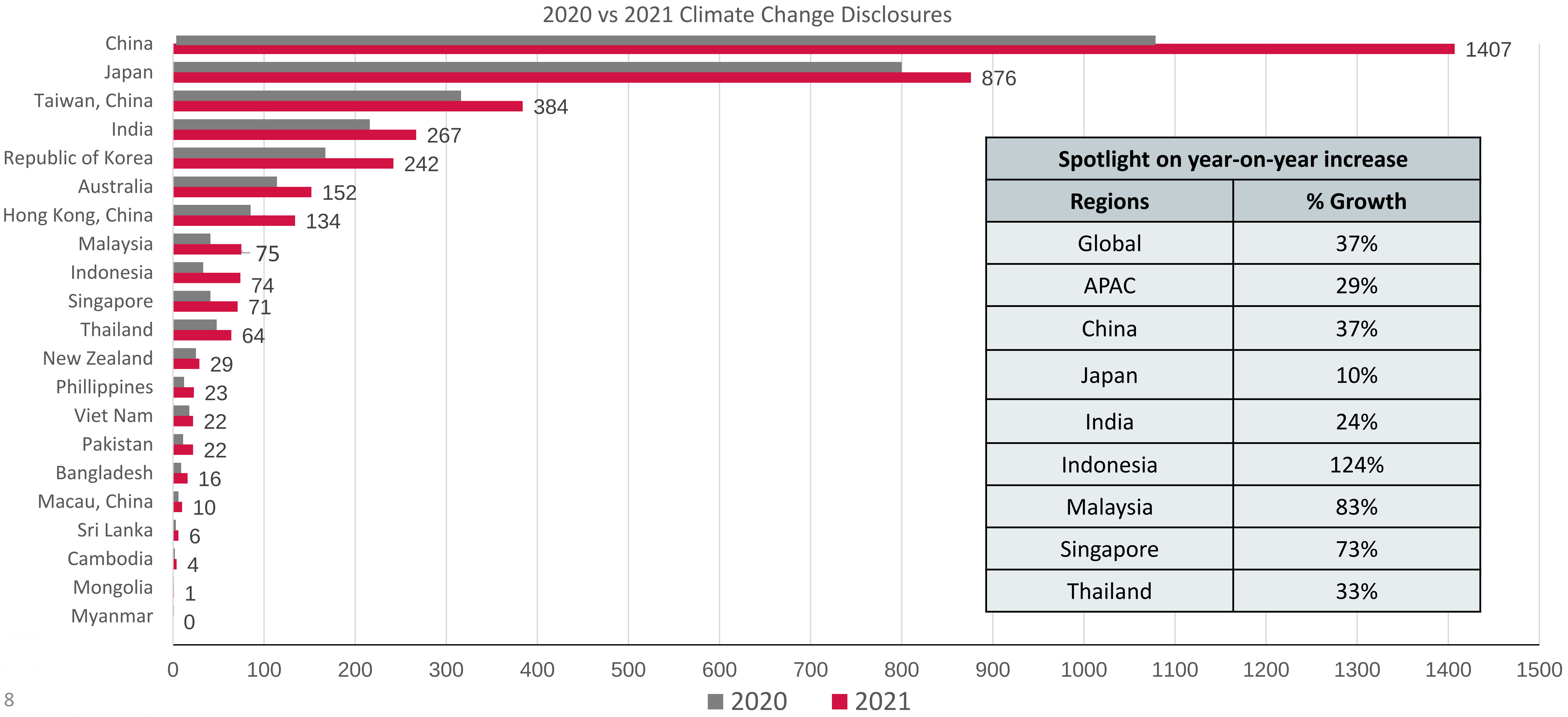
200+ supply chain members with over US$5.5 trillion in purchasing power

13,000+ companies disclosed environmental information

64% of global market capitalisation represented and disclosed

1,100+ cities, states and regions disclosed

APAC: 3,800+ COMPANIES DISCLOSED ON CLIMATE IMPACTS IN 2021



Spotlight on year-on-year increase	
Regions	**% Growth**
Global	37%
APAC	29%
China	37%
Japan	10%
India	24%
Indonesia	124%
Malaysia	83%
Singapore	73%
Thailand	33%

EVOLUTION OF FINANCIAL SERVICES QUESTIONNAIRE

CDP
DISCLOSURE INSIGHT ACTION

Vision: *Create a reporting framework for financial services covering all climate- and nature-related impacts of financing*

Early 2020

- Launched first *FS Q for financial sector
- Focused on climate change

2020

- Piloted *FS Q w/ climate change & forests metrics with banks
- Focused on Southeast Asia

2021

- Continued pilot of *FS Q w/ next phase of forests metrics
- Developing water metrics

2022 beyond

- Integration of metrics on climate change, forests and water security

**FS Q: Financial Services questionnaire*

OVERVIEW OF FINANCIAL SERVICES QUESTIONNAIRE

Financial Services Questionnaire	
C0	Introduction
C1	Governance
C2	Risks and opportunities
C3	Business strategy
C4	Targets and performance
C5	Emissions methodology
C6	Emissions data
C7	Emissions breakdown
C8	Energy
C9	Additional metrics
C10	Verification
C11	Carbon pricing
C12	Engagement
C14	Portfolio impact
C15	Biodiversity
C16	Signoff
FW-FS	Forests and Water Security

Note:

- **Module C14 – Portfolio Impact** is only presented to companies responding to the Financial Services questionnaire
- **Module C15 – Biodiversity** is a new module
- Module **FW-FS – Forests and Water Security** is a new module and only presented to companies responding to the Financial Services questionnaire

Key changes to the 2022 Financial Services Questionnaire

Exclusion policies

- Updated to align with SBTi Finance and RE100

Carbon-related assets

- New question to improve transparency on financing & insurance volumes of carbon-related assets

Portfolio targets

- New question allows companies to report to climate-related portfolio targets
- Alignment with SBTi-FI

Covenants

- New question asking banks to disclose if and what covenants are included in financing agreements

Net zero transition

- Updates to questions to help track all net zero commitments under the Glasgow Financial Alliance for Net Zero

Shareholder voting

- New question asking investors about shareholder voting on climate-related issues
- Alignment with Say on Climate

Overview of Portfolio Impact module

Financial sector has significant environmental impact and risks

CDP
DISCLOSURE INSIGHT ACTION

Banking industry has assets worth
US$155 tn

Financed emissions are more than
700x
operational emissions

Cost to manage risk
US$ 2bln

Potential financial impact of risk
US$ 677 bln

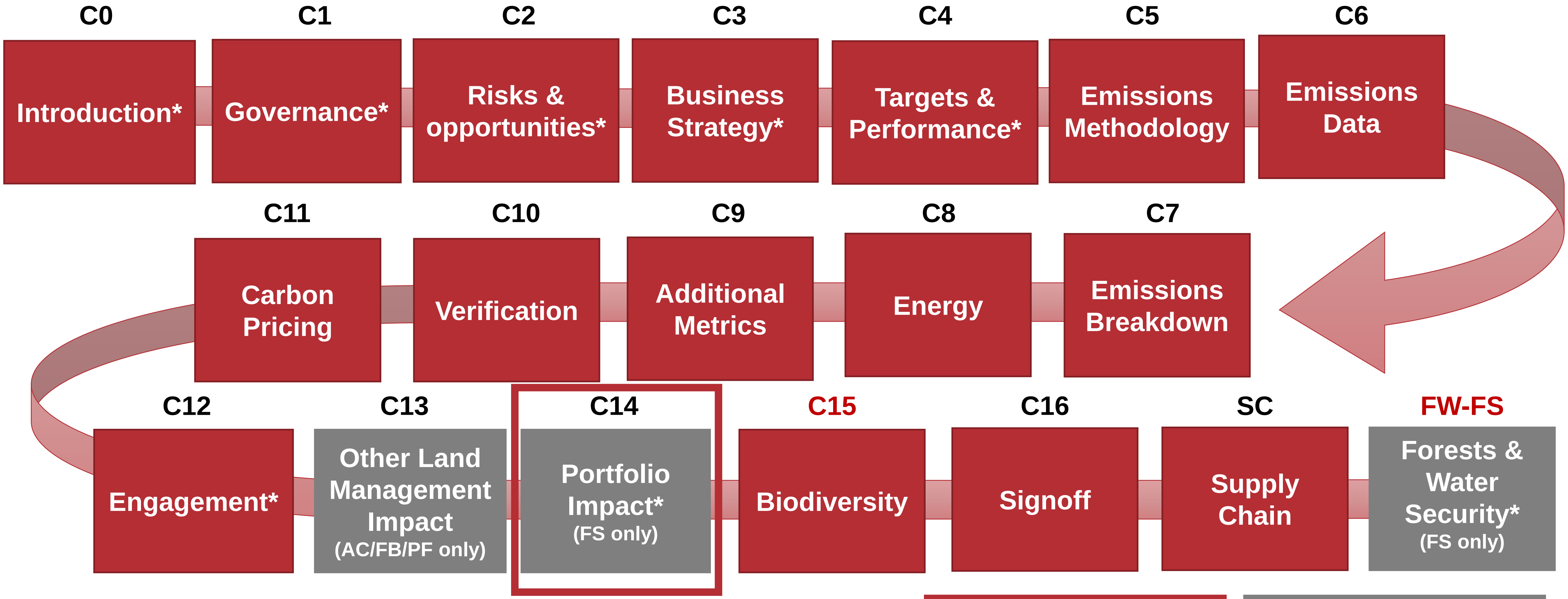
Reduced financing of fossil fuels
40%
When investors were requested to disclose on climate

The financial sector holds the power and the capital to drive change

The potential financial impact figure dwarfs the cost to manage the risks

Disclosure drives action

Climate Change Questionnaire Structure



*Contains sector-specific questions

Sector-specific module

C14 Portfolio Impact

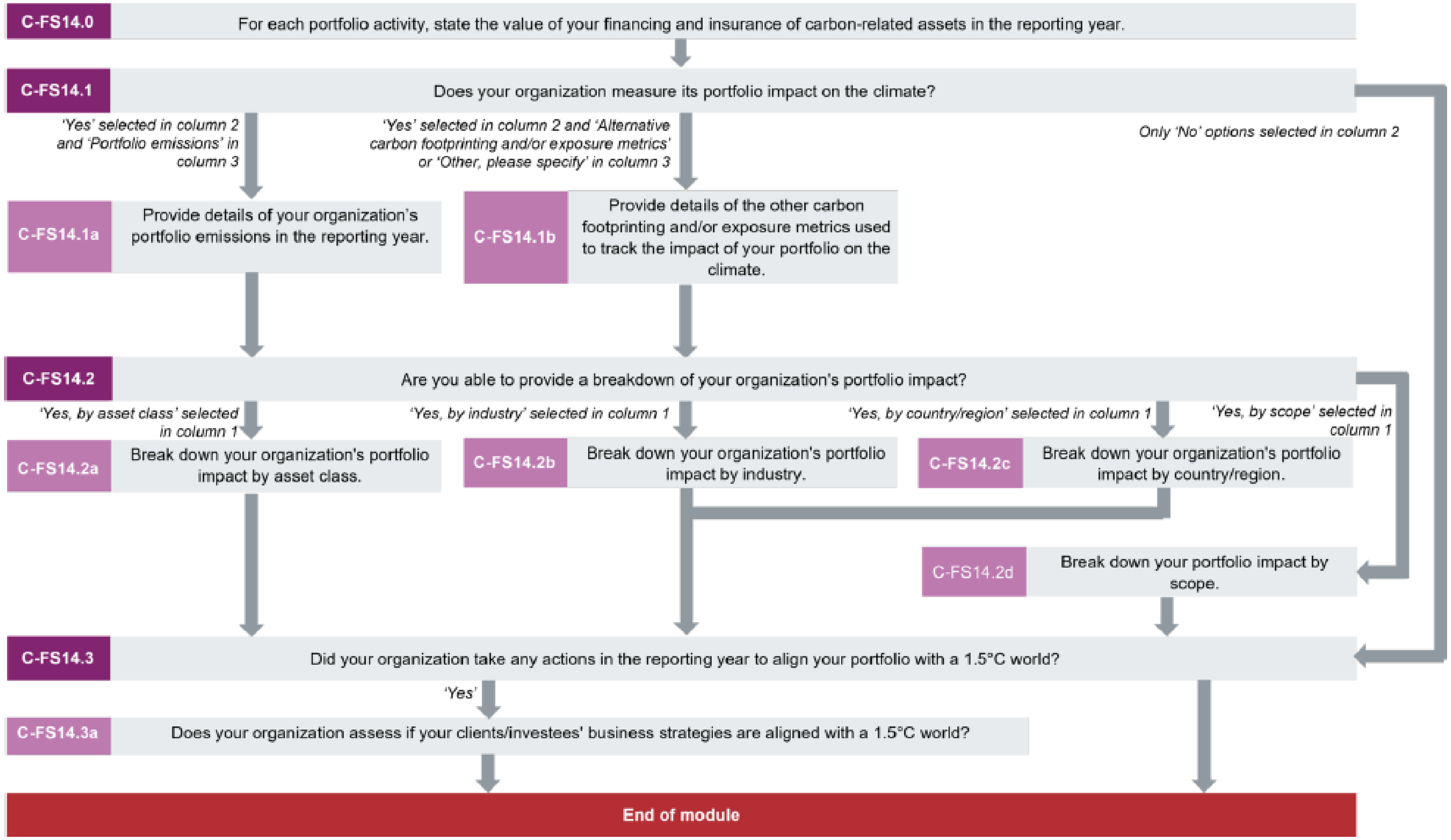
2022 MODULES
C0 Introduction
C1 Governance
C2 Risks and opportunities
C3 Business strategy
C4 Targets and performance
C5 Emissions methodology
C6 Emissions data
C7 Emissions breakdown
C8 Energy
C9 Additional metrics
C10 Verification
C11 Carbon pricing
C12 Engagement
C13 Other land management impacts
C14 Portfolio impact (FS only)
C15 Biodiversity
C16 Sign off
SC Supply Chain
FW-FS Forests and Water Security (FS only)

C14 Portfolio impact (11 questions)

Portfolio impact (4 Qs)	**1 NEW QUESTION** **3 MODIFIED QUESTIONS**
Portfolio impact breakdown (5 Qs)	**1 NEW QUESTION** **4 MODIFIED QUESTIONS**
Portfolio alignment (2 Qs)	**2 MODIFIED QUESTIONS**

@CDP

C14 Portfolio Impact



(C-FS14.0) For each portfolio activity, state the value of your financing and insurance of carbon-related assets in the reporting year.

DISCLOSURE INSIGHT ACTION

NEW QUESTION

- The majority of financial institutions’ emissions are driven by the activities they finance in the wider economy (financed emissions) and their exposure to climate-related risks and opportunities are determined by their portfolios; that is by their lending, investment and insurance underwriting activities.

Portfolio activity	Are you able to report a value for the carbon-related assets?	Value of the carbon-related assets in your portfolio (unit currency - as specified in C0.4)*	New loans advanced in reporting year (unit currency - as specified in C0.4)*	Total premium written in reporting year (unit currency - as specified in C0.4)*	Percentage of portfolio value comprised of carbon-related assets in reporting year*	Primary reason for not providing a value for the financing and/or insurance to carbon-related assets*	Please explain why you are not providing a value for the financing and/or insurance to carbon-related assets and your plans for the future*
Lending to all carbon-related assets*	Select from: • Yes • No, but we plan to assess our portfolio's exposure in the next two years • No, and we do not plan to assess our portfolio's exposure in the next two years	Numeric field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numeric field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Numeric field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Percentage field [enter a percentage from 0-100]	Select from: • Important, but not immediate priority • Judged to be unimportant, explanation provided • Lack of internal resources • No instruction from management • No relevant exposure in portfolio • Other, please specify	Text field [maximum 2,500 characters]
Lending to coal*							
Lending to oil and gas*							
Investing in all carbon-related assets (Asset manager)*							
Investing in coal (Asset manager)*							
Investing in oil and gas (Asset manager)*							
Investing all carbon-related assets (Asset owner)*							
Investing in coal (Asset owner)*							
Investing in oil and gas (Asset owner)*							
Insuring all carbon-related assets*							
Insuring coal*							
Insuring oil and gas*							

(C-FS14.1) Does your organization measure its portfolio impact on the climate?

MODIFIED QUESTION

The majority of emissions associated with the financial services sector are driven by their lending, investments and insurance activities (financed emissions). This question informs investors and other data users about the extent to which you understand your portfolio's climate-related impact.

Portfolio	We conduct analysis on our portfolio's impact on the climate.	Disclosure metric*	Please explain why you do not measure the impact of your portfolio on the climate*
Banking (Bank)*	Select from: • Yes • No, but we plan to do so in the next two years • No, and we do not plan to do so in the next two years	Select all that apply: • Portfolio emissions • Other carbon footprinting and/or exposure metrics (as defined by TCFD) • Other, please specify	Text field [maximum 2,400 characters]
Investing (Asset manager)*			
Investing (Asset owner)*			
Insurance underwriting (Insurance company)*			

(C-FS14.1a) Provide details of your organization's portfolio emissions in the reporting year.

MODIFIED QUESTION

GHG emissions accounting is one of the primary metrics organizations in the financial sector can use to understand how their portfolio impacts the climate. In addition to highlighting risks and opportunities, portfolio emissions disclosure is a pre-requisite for financial institutions to measure improvements in the climate performance of their portfolios, and measure progress towards the net zero commitments that are increasingly being made.

Portfolio	Portfolio emissions (metric unit tons CO_2e) in the reporting year	Portfolio coverage	Percentage calculated using data obtained from clients/investees	Emissions calculation methodology	Please explain the details and assumptions used in your calculation
Banking (Bank)*	Numerical field [enter a number from 0-999,999,999,999 using a maximum of 3 decimal places and no commas]	Percentage field [enter a percentage from 0-100]	Percentage field [enter a percentage from 0-100]	Select from: • The Global GHG Accounting and Reporting Standard for the Financial Industry • Other, please specify	Text field [maximum 2,500 characters]
Investing (Asset manager)*					
Investing (Asset owner)*					
Insurance underwriting (Insurance)*					

(C-FS14.1b) Provide details of the other carbon footprinting and/or exposure metrics used to track the impact of your portfolio on the climate.

MODIFIED QUESTION

This question acknowledges that in addition to GHG emissions accounting, there are a number of other metrics organizations in the financial sector can use to understand how their portfolio impacts the climate. As currently there is no single, globally approved methodology or metric, this question allows you to express your portfolio impact using other metrics identified by the TCFD.

Portfolio	Portfolio metric	Metric value in the reporting year	Portfolio coverage	Percentage calculated using data obtained from clients/investees	Calculation methodology
Select from: • Banking (Bank)* • Investing (asset manager)* • Investing (asset owner)* • Insurance underwriting (insurance company)*	Select from: • Weighted average carbon intensity (tCO2e/Million revenue) • Portfolio carbon footprint (tCO2e/Million invested) • Carbon intensity (tCO2e/Million revenue) • Avoided emissions financed (tCO2e) • Carbon removals financed (tCO2e) • Other, please specify	Numeric field [enter a range of 0-999,999,999 using a maximum of 3 decimal places and no commas]	Percentage field [enter a percentage from 0-100]	Percentage field [enter a percentage from 0-100 using a maximum of 2 decimal places]	Text field [maximum of 3,000 characters]

(C-FS14.2) Are you able to provide a breakdown of your organization's portfolio impact?

MODIFIED QUESTION

- By breaking down emissions and other carbon footprinting and/or exposure metrics by asset class, industry, country/regional level and scope, information and data can be made available to investors and other stakeholders to help guide the development of portfolio footprinting methodologies, global decarbonization efforts and regional legislation.

Portfolio breakdown	Please explain why you do not provide a breakdown of your portfolio impact*
Select all that apply: • Yes, by asset class • Yes, by industry • Yes, by country/region • Yes, by scope • None of the above, but we plan to do this in the next 2 years • None of the above and we don't plan to do this	Text field [maximum 2,400 characters]

(C-FS14.2a) Break down your organization's portfolio impact by asset class.

MODIFIED QUESTION

Breaking down emissions and other carbon footprinting and/or exposure metrics by asset class can give an indication of the relative GHG emissions performance and/or exposure to climate-related risks of your company's assets. When reported over time, your organization and investors will be able to review improvements or declines in asset performance with considerations for your portfolio's impact on the climate.

Asset class*	Portfolio metric	Portfolio emissions or alternative metric
Select from: Banking • Corporate loans • Retail loans • Corporate real estate • Retail mortgages • Trade finance • Asset finance • Project finance • Other, please specify Investing • Fixed Income • Listed Equity • Private Equity • Real estate/Property • Infrastructure • Commodities • Forestry • Hedge funds • Mutual funds • Fund of funds • Derivatives • Other, please specify Insurance • Property & Casualty • Construction & Engineering • Agribusiness • Motor • Marine • Life • Health • Other, please specify	Select from: • Absolute portfolio emissions (tCO2e) • Weighted average carbon intensity (tCO2e/Million revenue) • Portfolio carbon footprint (tCO2e/Million invested) • Carbon intensity (tCO2e/Million revenue) • Exposure to carbon-related assets (Million portfolio value) • Avoided emissions financed (tCO2e) • Carbon removals financed (tCO2e) • Other, please specify	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 2 decimal places and no commas]

(C-FS14.2b) Break down your organization's portfolio impact by industry.

MODIFIED QUESTION

As sectoral decarbonization is at the center of some carbon footprinting methodologies, breaking down emissions, other carbon footprinting and/or exposure metrics on an industry level is key to identify concentrations of carbon-related assets in the financial sector and the financial system's exposure to climate-related risks. Reporting at this level can provide a useful indicator for making comparisons between your financial activities in different industries.

Portfolio*	Industry	Portfolio metric	Portfolio emissions or alternative metric
Select from: • Banking (Bank) • Investing (Asset manager) • Investing (Asset owner) • Insurance underwriting (Insurance company)	Select from: • Energy • Materials • Capital Goods • Commercial & Professional Services • Transportation • Automobiles & Components • Consumer Durables & Apparel • Consumer Services • Retailing • Food & Staples Retailing • Food, Beverage & Tobacco • Household & Personal Products • Health Care Equipment & Services • Pharmaceuticals, Biotechnology & Life Sciences • Banks • Diversified Financials • Insurance • Software & Services • Technology Hardware & Equipment • Semiconductors & Semiconductor Equipment • Telecommunication Services • Media & Entertainment • Utilities • Real Estate • Other, please specify	Select from: • Absolute portfolio emissions (tCO2e) • Weighted average carbon intensity (tCO2e/Million revenue) • Portfolio carbon footprint (tCO2e/Million invested) • Carbon intensity (tCO2e/Million revenue) • Exposure to carbon-related assets (Million portfolio value) • Avoided emissions financed (tCO2e) • Carbon removals financed (tCO2e) • Other, please specify	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 2 decimal places and no commas]

(C-FS14.2c) Break down your organization's portfolio impact by country/region.

DISCLOSURE INSIGHT ACTION

MODIFIED QUESTION

In some cases, particular countries/regions may fall within the scope of particular legislation, therefore, providing country/region-level emissions and/or exposure figures may give data users insight into your organization's current/potential exposure to regulation in this country/region.

Portfolio*	Country/region	Portfolio metric	Portfolio emissions or alternative metric
Select from: • Banking (Bank) • Investing (Asset manager) • Investing (Asset owner) • Insurance underwriting (Insurance company)	Select from: [Country/region drop-down list]	Select from: • Absolute portfolio emissions (tCO_2e) • Weighted average carbon intensity (tCO_2e/Million revenue) • Portfolio carbon footprint (tCO_2e/Million invested) • Carbon intensity (tCO_2e/Million revenue) • Exposure to carbon-related assets (Million portfolio value) • Avoided emissions financed (tCO_2e) • Carbon removals financed (tCO_2e) • Other, please specify	Numeric field [enter a number from 0-999,999,999,999 using a maximum of 2 decimal places and no commas]

(C-FS14.2d) Break down your organization's portfolio impact by scope.

NEW QUESTION

Current methodologies for calculating portfolio emissions can lead to double counting across scopes. For example, what are counted as Scope 1 emissions for an electricity generation company could be the same emissions for a retailer but counted as Scope 2. There is currently no way for financial institutions to overcome this in their portfolio emission calculations, but this question allows you to report emissions by scope separately.

Portfolio*	Clients'/investees' scope	Portfolio emissions (metric tons CO2e)
Select from: • Bank lending (Bank) • Investing (Asset manager) • Investing (Asset owner) • Insurance underwriting (Insurance company)	Select from: • Scope 1 • Scope 2 (location-based) • Scope 2 (market-based) • Scope 3	Numerical field [enter a range of 0-999,999,999,999 using a maximum of 2 decimal places and no commas]

(C-FS14.3) Did your organization take any actions in the reporting year to align your portfolio with a 1.5°C world?

MODIFIED QUESTION

- Steering financial portfolios in line with a 1.5°C world will make financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. Since financial services sector organizations are at the core of enabling economic activities, their commitments and targets have a trickle-down effect on the real economy.

Portfolio	Actions taken to align our portfolio with a 1.5°C world	Please explain why you have not taken any action to align your portfolio with a 1.5°C world*
Banking (Bank)*	Select from: • Yes • No, but we plan to in the next two years • No, and we do not plan to in the next two years	Text field [maximum 2,500 characters]
Investing (Asset manager)*		
Investing (Asset owner)*		
Insurance underwriting (Insurance company)*		

(C-FS14.3a) Does your organization assess if your clients/investees' business strategies are aligned with a 1.5°C world?

DISCLOSURE INSIGHT ACTION

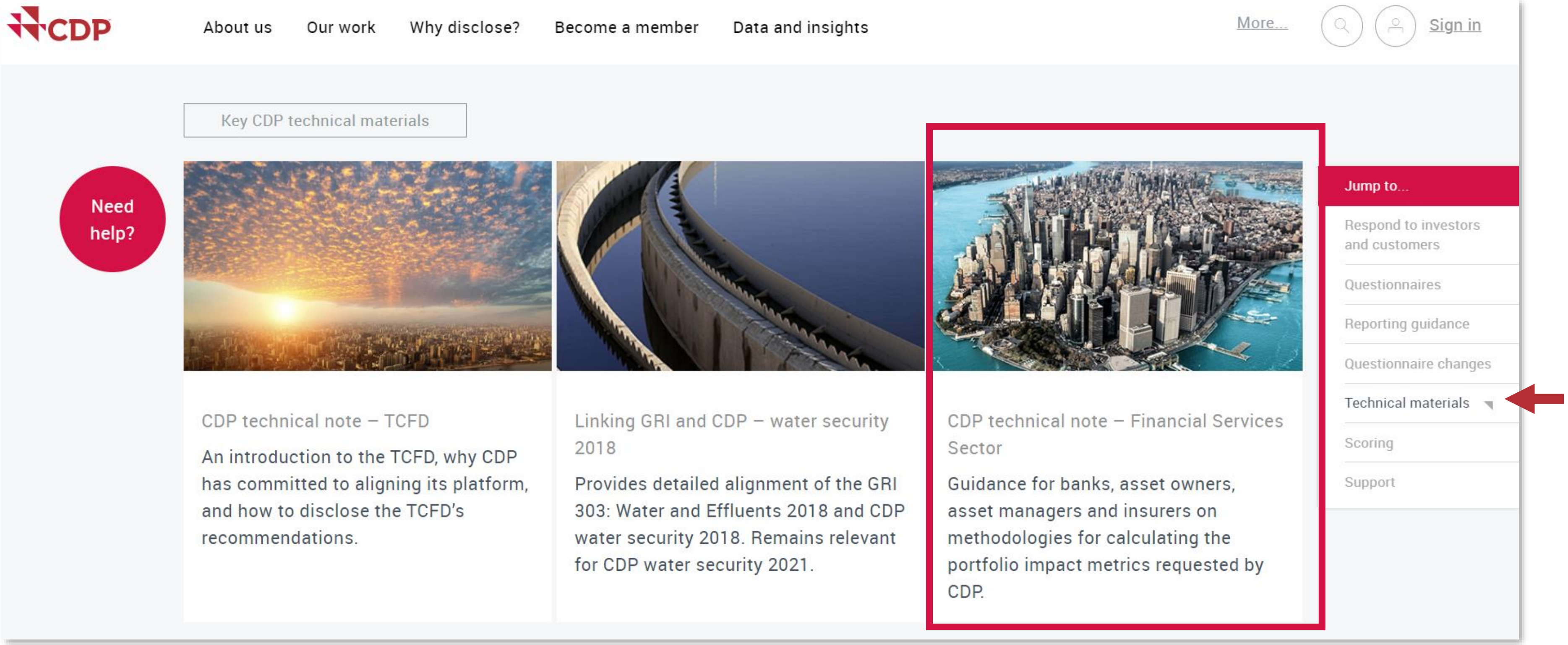
MODIFIED QUESTION

- While the commitments and targets of financial institutions are a critical step, it is changes in business strategies amongst their clients/investees where emissions actually take place which will decarbonize the real economy. Organizations in the financial sector are encouraged to assess whether their clients/investees' business strategies are aligned to a 1.5°C world in order to drive change and decarbonize the real economy.

Portfolio	Assessment of alignment of clients/investees' strategies with a 1.5°C world	Please explain why you are not assessing if your clients/investees' business strategies are aligned with a 1.5°C world*
Banking (Bank)*	Select from: • Yes, for all • Yes, for some • No, but we plan to in the next two years • No, and we do not plan to in the next two years	Text field [maximum 2,500 characters]
Investing (Asset manager)*		
Investing (Asset owner)*		
Insurance underwriting (Insurance company)*		

Technical note for FS sector

- CDP Technical Note on Portfolio Impact Metrics (C14 Portfolio impact – Climate Change only)



Q&A

Partnership for Carbon Accounting Financials (PCAF)

Partnership for Carbon Accounting Financials

Enabling financial institutions to assess and disclose financed emissions

Prepared for CDP 2022 Asia Pacific Capacity Building Webinar Series for Financial Institutions

4 May 2022

PCAF Partnership for Carbon Accounting Financials

Agenda


The GLOBAL GHG ACCOUNTING & REPORTING Standard
FOR THE FINANCIAL INDUSTRY
PCAF
Partnership for Carbon Accounting Financials
BUILT ON GHG PROTOCOL

Introduction to PCAF

PCAF

PCAF: A global industry-led initiative to standardize the measurement and disclosure of financed emissions

2015: Netherlands | 2018: North America | 2019: Global

Global Steering Committee

ABN·AMRO

amalgamated bank

asn bank

Global Alliance for Banking on Values

Morgan Stanley

NMB BANK एनएमबि बैंक समृद्ध नेपालको लागि

Triodos Bank

UN-convened Net-Zero Asset Owner Alliance

More than 250 financial institutions in 56 countries have joined PCAF, representing $71+ trillion in total assets

Objectives of PCAF

1. Develop the Global GHG Accounting and Reporting Standard for the Financial Industry

2. Increase the number of financial institutions that use the Standard and disclose financed emissions to over **250 institutions worldwide by year-end 2022**

Check the full list of PCAF signatories here

Download the Global GHG Accounting and Reporting Standard here

PCAF

Since 2015, PCAF participants have developed and tested GHG accounting methods, leading to a globally harmonized Standard

- **2011** – WRI and WBCSD published Corporate Value Chain (Scope 3) Accounting and Reporting Standard
- **2015** – PCAF founded by Dutch financial institutions
- **2018** – PCAF launched in North America
- **2019** – PCAF published 2 reports on GHG accounting methods
- **2019** – PCAF launched globally
- **2020** – PCAF launches Global GHG Accounting and Reporting Standard for the financial industry

The GLOBAL GHG ACCOUNTING & REPORTING Standard

FOR THE FINANCIAL INDUSTRY

BUILT ON GHG PROTOCOL

"This standard has been reviewed by the GHG Protocol and is in conformance with the requirements set forth in the Corporate Value Chain (Scope 3) Accounting and Reporting Standard, for Category 15 investment activities."

The PCAF Global GHG Accounting and Reporting Standard for the Financial Industry was launched in November 2020

1. **Industry-led**
2. **Built on the GHG Protocol**
3. **Network effects**

The GLOBAL GHG ACCOUNTING & REPORTING Standard

FOR THE FINANCIAL INDUSTRY

GHG accounting for six asset classes

Listed Equity and Corporate Bonds

$$\frac{\textit{Outstanding amount}}{\textit{EVIC or Total company equity + debt}} \times \textit{Company emissions}$$

EVIC = enterprise value including cash

Business Loans and Unlisted Equity

$$\frac{\textit{Outstanding amount}}{\textit{EVIC or Total company equity + debt}} \times \textit{Company emissions}$$

EVIC = enterprise value including cash

Project Finance

$$\frac{\textit{Outstanding amount}}{\textit{Total project equity + debt}} \times \textit{Project emissions}$$

Commercial Real Estate

$$\frac{\textit{Outstanding amount}}{\textit{Property value at origination}} \times \textit{Building emissions}$$

Mortgages

$$\frac{\textit{Outstanding amount}}{\textit{Property value at origination}} \times \textit{Building emissions}$$

Motor Vehicles Loans

$$\frac{\textit{Outstanding amount}}{\textit{Total value at origination}} \times \textit{Vehicle emissions}$$

PCAF

The PCAF Core Team continues to expand on the Standard with more asset classes and case studies

BANCO PICHINCHA

ABN·AMRO

BlackRock

ROBECO

amalgamated bank

Produbanco
Grupo Promerica

CDC
Investment works

Triodos Bank

FirstRand

UN-convened
Net-Zero Asset
Owner Alliance

FMO
Entrepreneurial
Development
Bank

BOSTON COMMON
ASSET MANAGEMENT

Morgan Stanley

HSBC

BANK OF AMERICA

BARCLAYS

AIMCo

Federated
Hermes

HANNON
ARMSTRONG

We are Family
CTBC HOLDING
中國信託金控

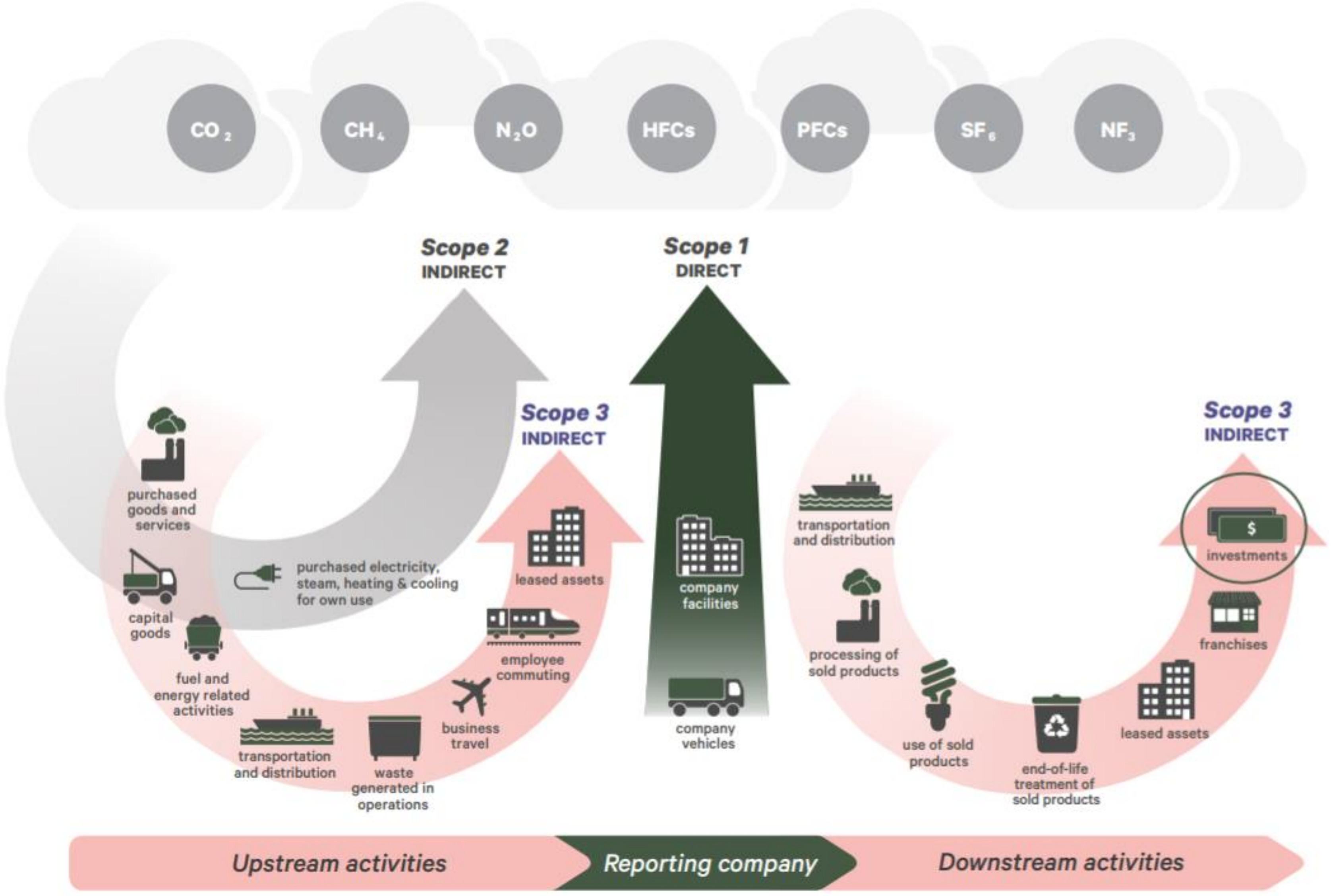
Deutsche Bank

The value of measuring financed emissions

Intro to GHG accounting for financial institutions

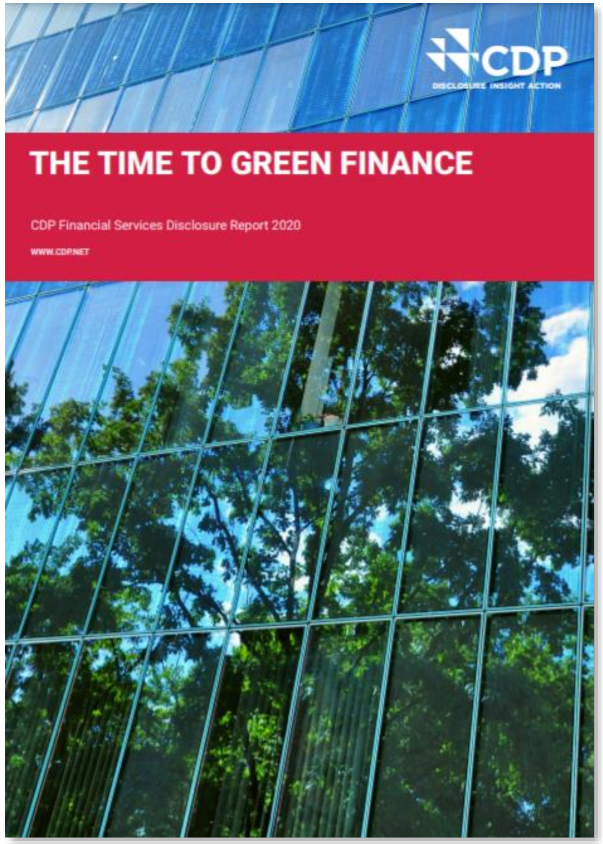
Greenhouse gas (GHG) accounting for financial institutions is the annual accounting and disclosure of **GHG emissions** associated with **loans and investments** at a fixed point in time in line with financial accounting periods.

What gets measured gets managed.



Key principle: financial institutions indirectly create a climate impact through their loans and investments.

Scope 3, Category 15 emissions are the largest component of the climate impact of a financial institution



Measuring and disclosing financed emissions furthers climate-related business goals and aligns with other initiatives

Business Goal 1	Business Goal 2	Business Goal 3	Business Goal 4
Create transparency for stakeholders	Manage climate-related transition risks	Develop climate-friendly financial products	Align financial flows with the Paris Agreement

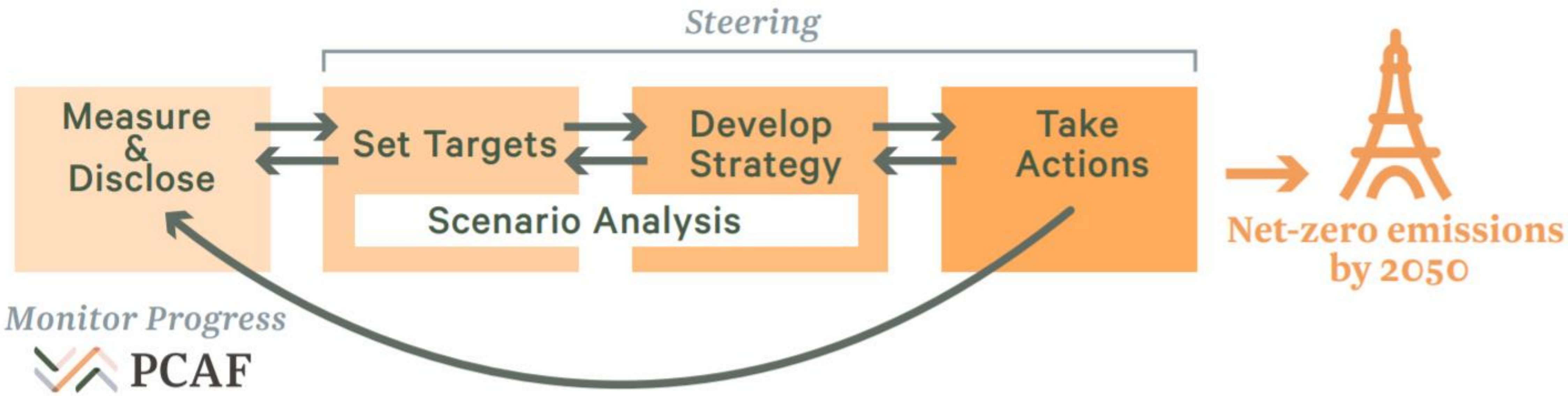
Measurement of financed emissions PCAF

CDP DISCLOSURE INSIGHT ACTION

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

GHG accounting exists as a discrete action in a sequence that allows banks and investors to measure, disclose and align



DOWNLOAD THE STRATEGIC FRAMEWORK (PDF, 2.1 MB)

GHG accounting implementation

PCAF

Emissions are attributed to financial institutions based on robust and consistent accounting rules

GHG accounting for financial institutions is the annual accounting and disclosure of GHG emissions associated with loans and investments at a fixed point in time in line with financial accounting periods.

$$\text{Portfolio GHG Emissions} = \sum_{i} \frac{\text{Outstanding amount}}{(\text{Equity} + \text{Debt})_{i}} \times \text{GHG Emissions}_{i}$$

i = borrower or investee

Attribution factor

- The equation above is general and is **applied for each asset class** in a financial institution’s portfolio
- The **attribution factor** is used to show the financial institution’s share of the borrow or investee’s emissions
- A borrower or investee is a general term and could represent a **company, property, project or motor vehicle** (depending on the asset class)

Availability of data determines the method of calculating financed emissions

$$\text{Financed generated emissions} = \sum_{i} \text{Attribution factor}_c \times \text{Emissions}_c$$

(with c = borrower or investee company)

(Option 1) Reported emissions$_c$

(Option 2) Physical activity-based emissions$_c$

(Option 3) Economic activity-based emissions$_c$

Hierarchy of preference

PCAF

The Standard addresses data quality issues and advises on which data can give the most robust results for each asset class

Data quality scoring from 1 to 5….

Certain
(5-10% error margin in estimations)

Uncertain
(40-50% error margin in estimations)

Score 1	Audited GHG emissions data or actual primary energy data
Score 2	Non-audited GHG emissions data, or other primary data
Score 3	Averaged data that is peer/(sub)-sectorspecific
Score 4	Proxy data on the basis of region or country
Score 5	Estimated data with very limited support

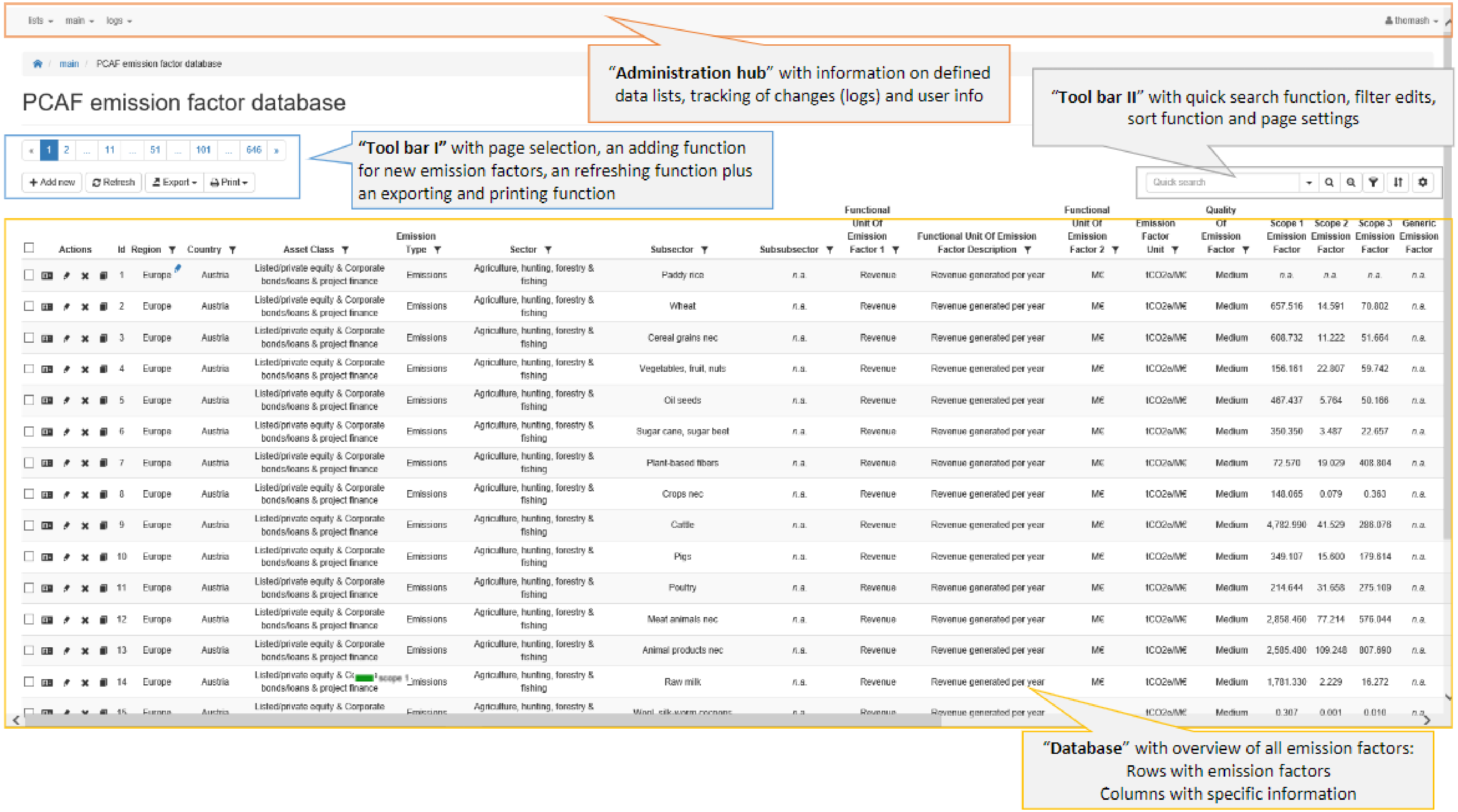
…enables financial institutions to develop a strategy to improve data over time

(score 1 = highest data quality; score 5 = lowest data quality)

Data Quality	Options to estimate the financed emissions		When to use each option
Score 1	**Option 1: Reported emissions**	**1a**	Outstanding amount in the company and EVIC are known. **Verified emissions** of the company are available.
Score 2		**1b**	Outstanding amount in the company and EVIC are known. **Unverified emissions** calculated by the company are available.
	Option 2: Physical activity-based emissions	**2a**[62]	Outstanding amount in the company and EVIC are known. Reported company emissions are not known. Emissions are calculated using primary physical activity data of the **company's energy consumption** and emission factors[63] specific to that primary data. Relevant process emissions are added.
Score 3		**2b**	Outstanding amount in the company and EVIC are known. Reported company emissions are not known. Emissions are calculated using primary physical activity data of the **company's production** and emission factors specific to that primary data.
Score 4	**Option 3: Economic activity-based emissions**	**3a**	Outstanding amount in the company, EVIC, and the **company's revenue**[64] are known. Emission factors for the sector per unit of revenue are known (e.g., tCO_2e per euro of revenue earned in a sector).
Score 5		**3b**	Outstanding amount in the company is known. Emission factors for the sector per unit of asset (e.g., tCO_2e per euro of asset in a sector) are known.
		3c	Outstanding amount in the company is known. Emission factors for the sector per unit of revenue (e.g., tCO_2e per euro of revenue earned in a sector) and **asset turnover ratios** for the sector are known.

PCAF

PCAF's open-source database enables financial institutions to start with GHG accounting at asset class level



Actions	Id	Region	Country	Asset Class	Emission Type	Sector	Subsector	Subsubsector	Functional Unit Of Emission Factor 1	Functional Unit Of Emission Factor Description	Functional Unit Of Emission Factor 2	Emission Factor Unit	Quality Of Emission Factor	Scope 1 Emission Factor	Scope 2 Emission Factor	Scope 3 Emission Factor	Generic Emission Factor
	1	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Paddy rice	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	n.a.	n.a.	n.a.	n.a.
	2	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Wheat	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	657.516	14.591	70.802	n.a.
	3	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Cereal grains nec	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	608.732	11.222	51.664	n.a.
	4	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Vegetables, fruit, nuts	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	156.181	22.807	59.742	n.a.
	5	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Oil seeds	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	467.437	5.764	50.186	n.a.
	6	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Sugar cane, sugar beet	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	350.350	3.487	22.657	n.a.
	7	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Plant-based fibers	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	72.570	19.029	408.804	n.a.
	8	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Crops nec	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	148.065	0.079	0.363	n.a.
	9	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Cattle	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	4,782.990	41.529	288.078	n.a.
	10	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Pigs	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	349.107	15.600	179.814	n.a.
	11	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Poultry	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	214.644	31.658	275.109	n.a.
	12	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Meat animals nec	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	2,858.460	77.214	576.044	n.a.
	13	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Animal products nec	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	2,505.400	109.248	807.690	n.a.
	14	Europe	Austria	Listed/private equity & Corporate bonds/loans & project finance	Emissions	Agriculture, hunting, forestry & fishing	Raw milk	n.a.	Revenue	Revenue generated per year	M€	tCO2e/M€	Medium	1,701.330	2.229	16.272	n.a.
	15	Europe	Austria	Listed/private equity & Corporate	Emissions	Agriculture, hunting, forestry &	Wool, silk-worm cocoons	n.a.	Revenue	Revenue generated per year		tCO2e/M€	Medium	0.307	0.001	0.010	n.a.

Characteristics

- Free access for PCAF participants
- Transparent
- Editable and thus extendable through "authorized" users
- Comprehensive with as many geographies, asset classes & sectors as possible
- Includes data quality score card

PCAF

Participation in PCAF

PCAF signatories commit to assess and disclose the greenhouse gas emissions of its financial portfolio

Commitment in short:

Measure and disclose the portfolio GHG emissions within three years of signing the commitment letter (portfolio coverage is up to the institution)

Commitment Letter

All financial institutions involved in the Partnership for Carbon Accounting Financials ("PCAF") subscribed and adhere to the following commitment. By joining PCAF, also our financial institution commits to adhere to this:

Addressing the urgent challenge of climate change, and decarbonizing our economy, is more pressing now than ever. That is why we have committed to measure and disclose the greenhouse gas (GHG) emissions associated with our portfolio of loans and investments within a period of three years using jointly developed carbon accounting methodologies, in order to ultimately enable the alignment of our portfolio with the Paris Climate Agreement.

We want to share and learn from credible carbon accounting practices to find solutions to shared challenges. We hope this will encourage and stimulate the adoption of carbon accounting and target setting in the financial sector on a larger and mainstream scale.

We will contribute to the overall objective of PCAF, which is to secure the public commitment (via signed commitment letters) of at least 100 participating financial institutions globally to measure and disclose the GHG emissions of their loans and investments within a period of three years. Together we will collaborate to achieve transparency and uniformity in carbon accounting.

We acknowledge that our commitment will be recognized on the PCAF website and social media account, as well as at other communication activities such as events where the initiative is showcased.

DOWNLOAD COMMITMENT LETTER

PCAF

Partnership for
Carbon Accounting
Financials

carbonaccountingfinancials.com | info@carbonaccountingfinancials.com | @pcafglobal

Q&A

DISCLOSURE INSIGHT ACTION

Science-based targets for financial institutions

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SBTs for Financial Institutions

2022 APAC Capacity Building

May 04, 2022

Partner organizations

CDP DISCLOSURE INSIGHT ACTION

United Nations Global Compact

WORLD RESOURCES INSTITUTE

WWF

In collaboration with

WE MEAN BUSINESS COALITION

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Introduction – About the SBTi

Build the technical foundations

Develop the **technical groundwork** required to facilitate the adoption of science-based targets in the corporate sector

Scale-up adoption

Build a **critical mass** of high-impact companies with science-based targets in key regions and sectors

Independent assessment

Provide **independent assessment** of targets, showcase early movers, and disseminate best practice.

1356
with science-based targets

2940
companies taking action

1032
net-zero commitments

PARTNER ORGANIZATIONS

CDP DISCLOSURE INSIGHT ACTION

UN GLOBAL COMPACT

WORLD RESOURCES INSTITUTE

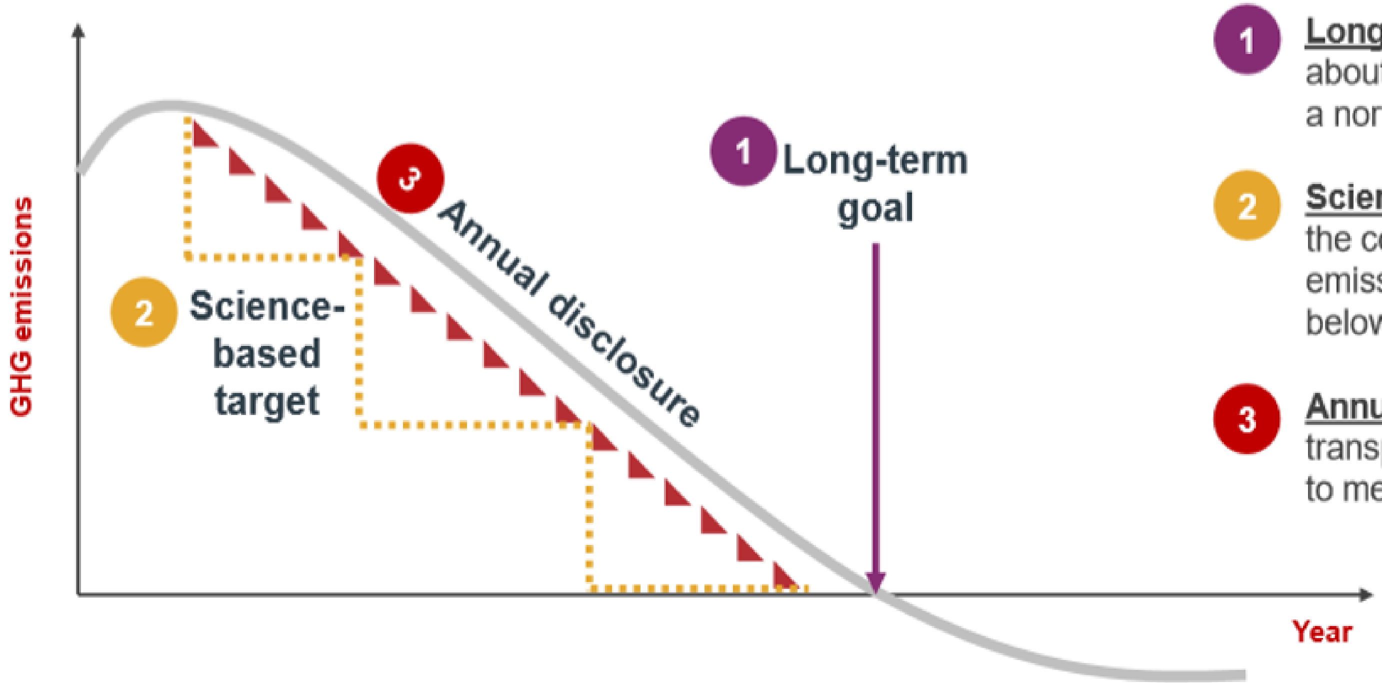
WWF

IN COLLABORATION WITH

WE MEAN BUSINESS

The path to the end goal

How can investors and other stakeholders ensure that companies are aligning towards the goals of the Paris Agreement?



1. **Long-term goal:** A net-zero long-term goal provides certainty about the direction that the company will follow and serves as a north-star for long-term strategic decisions;
2. **Science-based target:** Science-based targets ensures that the company is taking shorter-term action to reduce emissions at a pace that is consistent with keeping warming below 1.5ºC / well-below 2ºC;
3. **Annual disclosure:** Climate disclosure provides transparency about the progress that the company is making to meet its long-term and medium-term goals

How does SBTi fit into the financial sector?

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Defines science-based approaches to formulating targets on financed emissions

Target setting methods

Fossil fuel financing

Carbon credits

SCIENCE BASED TARGETS

SBTi Finance contributes to the wider ecosystem of related initiatives through its transparent and robust target-setting platform and disclosure requirements.

Harmonizes with peer initiatives to create consistent science-based approaches to net-zero for FIs

GFANZ

UN-convened Net-Zero Alliances
Net-Zero Asset Owners Alliance
Net-Zero Banking Alliance
Net Zero Asset Managers Initiative
Net-Zero Insurance Alliance

RACE TO ZERO

PCAF Partnership for Carbon Accounting Financials

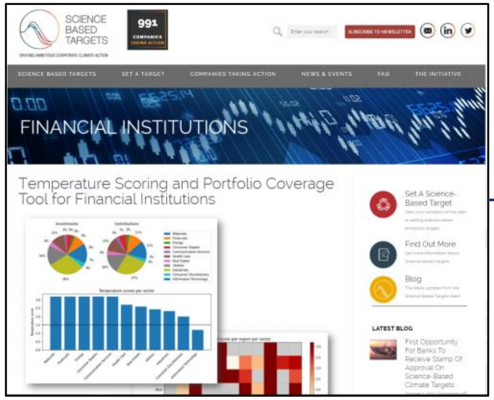
SBTi FI Step by Step

SBTi Framework Components

1. Criteria

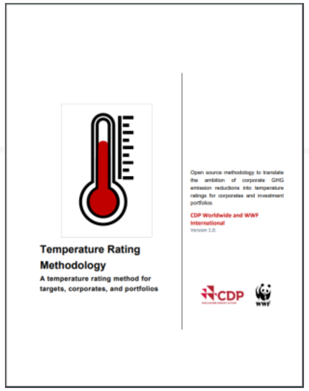
2. Guidance

SBTs for FIs



4. Tools

3. Methods



Audience

- The SBTi defines a financial institution as a company whose business involves the arrangement and execution of financial and monetary transactions, including deposits, loans, investments, and currency exchange.
- More specifically, the SBTi deems a company a financial institution if **5 percent or more of its revenue or assets** comes from the activities described above.

Primary Audience

- Banks,
- Asset managers
- Asset owners
- Mortgage real estate investment trusts (REITs).

Secondary Audience

Other financial institutions (e.g. motor financing) with following asset class holdings:

- Real Estate
- Mortgages
- Elec project finance
- Corporate and consumer loans, bonds, and equity

Not Included in pilot phase

- Development banks
- Sovereign wealth
- Insurance/under writing
- Private Equity

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SBTs: A 3-step process

Step 1
Determine what is in scope

Step 2
Select most appropriate method to cover in-scope assets

Step 3
Defining ambition of targets and how to achieve them

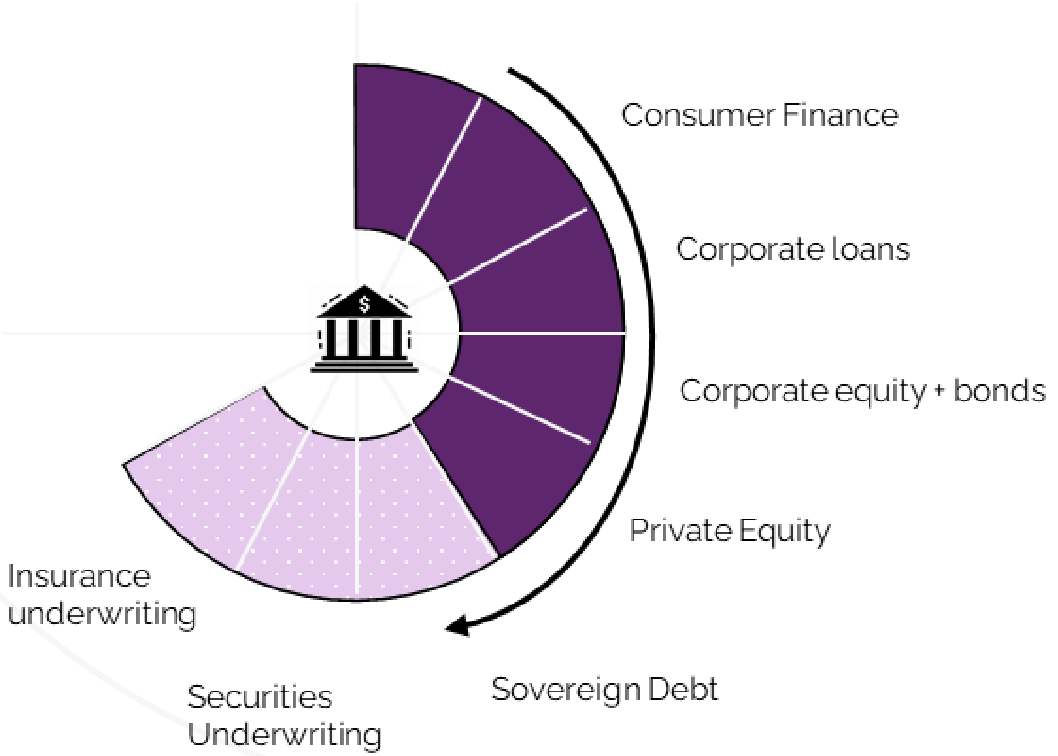
Asset class approach, only cover in-scope assets, where target setting methods are available

Methods are used to increase Paris-alignment of portfolio constituents over time to ensure real-world emission reductions

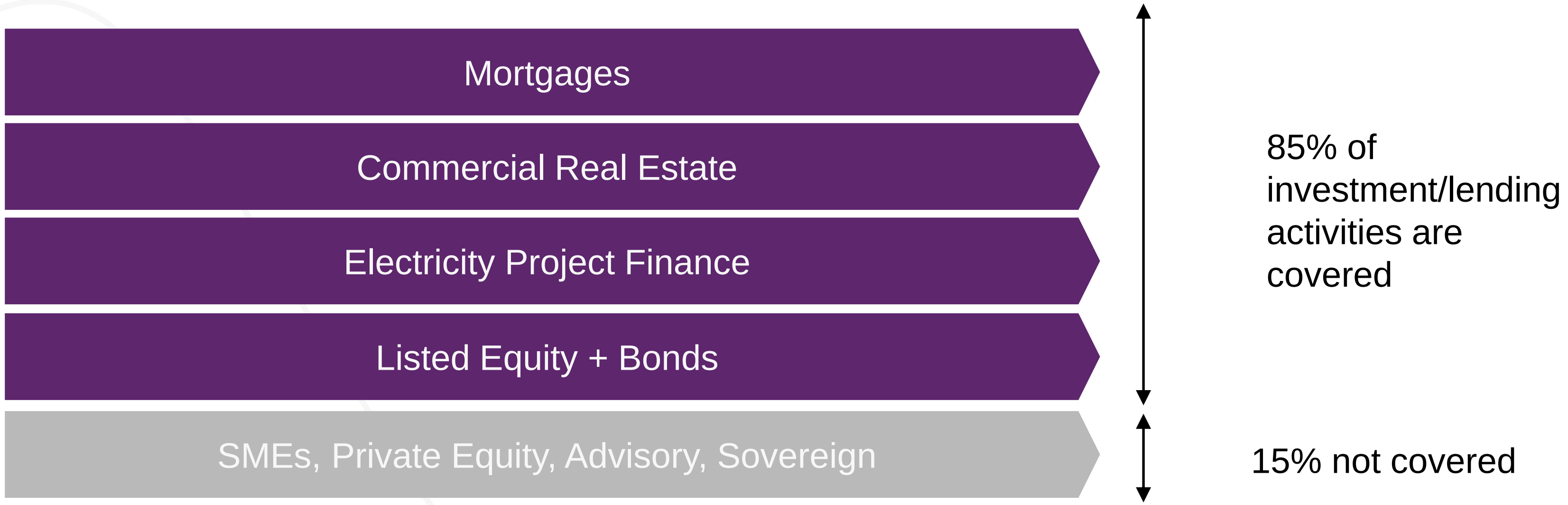
Ambition defined as all portfolio companies achieving well-below 2C alignment

Step 1. Determining the Target Boundary

- Use an asset class, not a portfolio wide boundary approach
- Within each relevant asset class, there are mandatory and optional categories, and follows a principle of influence
- The SBTi will be expanding its coverage of asset classes over time as methods are developed e.g. sovereign debt methods to be released in mid-2022



Step 1. Determining the Target Boundary



Example Targets

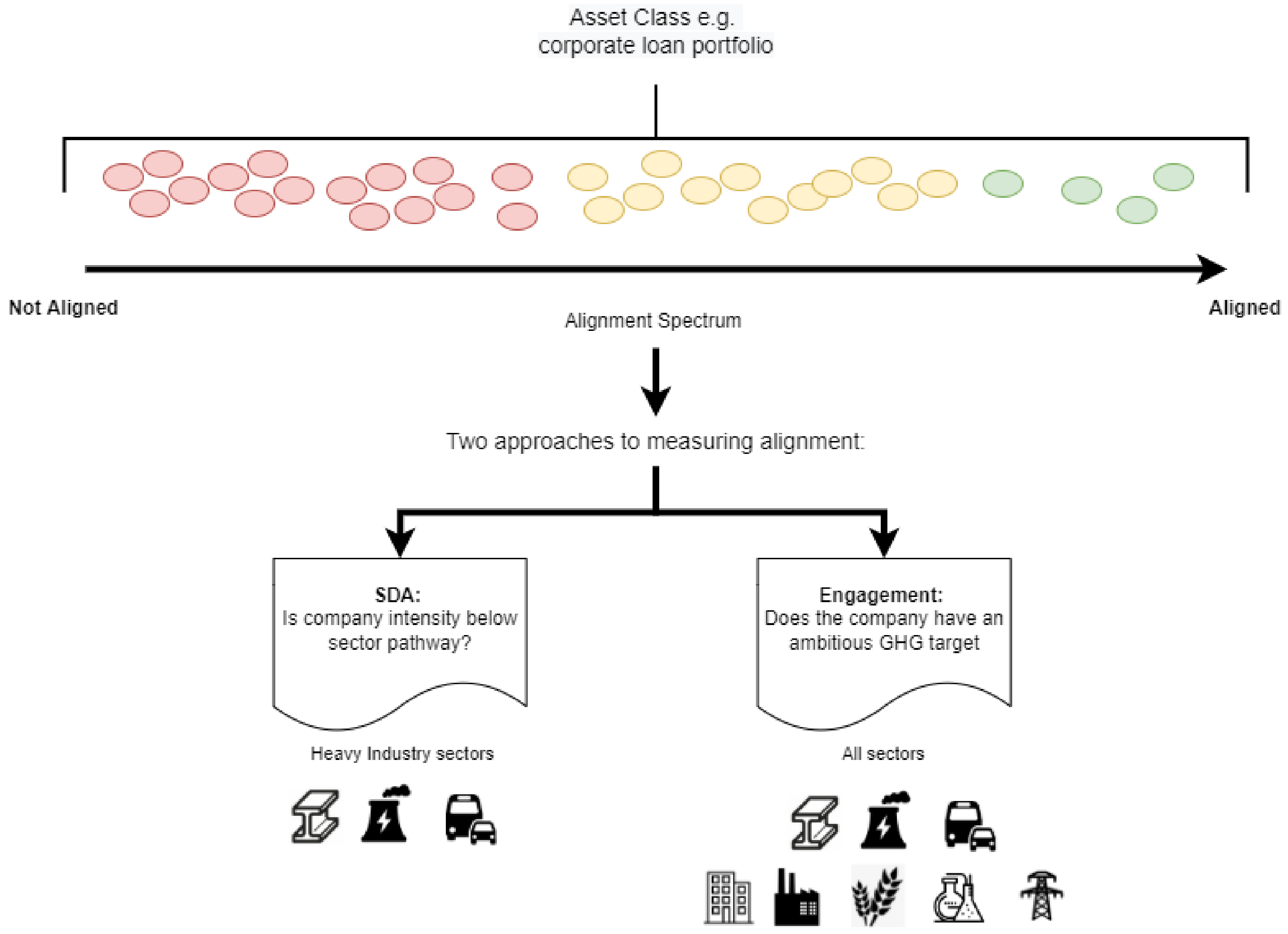
LBP: *"Achieve SBTs in Real Estate, Mortgages, Electricity Generation Project Finance and Corporate Instruments by 2030 from a 2020 base year. La Banque Postale's portfolio targets cover 85% of total investment and lending activities as of 2020."*

KB Financial Group: "KB Financial Group's portfolio targets cover 13% of its total investment and lending activities by total exposure* as of December 31st, 2019."
*sum of loans, equity, bonds, beneficiary certificates, and other securities managed by KB Financial Group

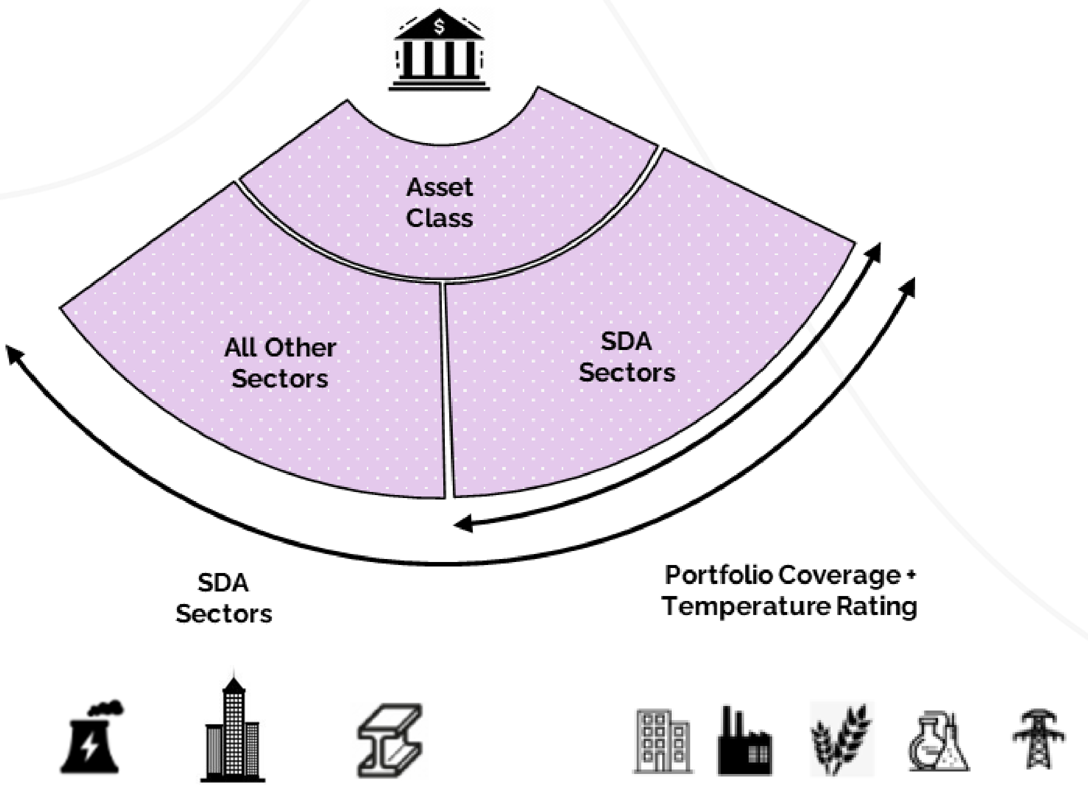
Step 2. Selecting Target Setting Methods

SBTi methods: A Paris Alignment Approach

- SBTi does not allow portfolio wide financing emissions targets (in absolute/intensity terms) e.g. 50% absolute or intensity reduction for financed emissions
- Goal of SBT methods are to increase alignment of portfolio constituents either through reducing intensity or ensuring target setting (and future tracking of performance against targets)



Step 2. Selecting Target Setting Methods



49% reduction per MWh

62% reduction per m2

34% reduction per tonne

commits to 33% of its corporate bond portfolio in all other sectors setting SBTi validated targets by 2025.

1. Portfolio Coverage
"Bank A commits to 35% of listed equity and bonds portfolios setting SBTi validated targets by 2025"

2. Temperature Rating
"Asset Management firm B commits to align its scope 1 + 2 portfolio temperature score by invested value within common stock, preferred stock, corporate bonds, ETFs and REITs from 3°C in 2019 to 2.2°C by 2025."

3. SDA
KBFG commits to reduce GHG emissions from the Power sectors within its corporate instruments (equity, bonds, loans) portfolio, 49.3% per MWh produced

Step 2. Selecting Target Setting Methods

KB Financial Group

Commercial Real Estate	Corporate loans				
All real estate lending	Pulp + Paper	Power	Iron + Steel	Aluminium	All other sectors
SDA	SDA	SDA	SDA	SDA	Temperature
2019 – 2030	2019 – 2030	2019 – 2030	2019 – 2030	2019 – 2030	2019 – 2025
59% reduction per m2 by	42% reduction per tonne of paper	49% reduction per MWh	42% reduction per tonne of steel	31% reduction per tonne of aluminium	Reduce portfolio temperature from 3.1C to 2.75C

Step 3. Defining Target Ambition

Data input varies across the methods

- SDA requires detailed GHG and activity data
- Temperature rating requires GHG target and emissions data
- Portfolio coverage requires only a binary check on SBT status of portfolio companies

Order	Company name	SBTi Status	S1+2+3 Temperature rating (°C)	Owned GHGs (tonnes CO2e)	Weighted contribution to temperature rating
1	Company A	Not committed	2.7	61,890	11.6%
2	Company B	Not committed	2.3	30,751	6.8%
3	Company C	Not committed	3.2	27,402	6.1%
4	Company D	Not committed	3.2	25,720	5.7%
5	Company E	Committed	3.2	19,983	4.4%
6	Company F	Not committed	3.9	15,348	4.2%
7	Company G	Not committed	3.2	16,419	3.7%
8	Company H	Committed	2.4	19,705	3.3%
9	Company I	Committed	2.5	15,703	2.7%
10	Company J	Not committed	3.2	11,426	2.5%
11	Company K	Approved	1.7	10,950	2.4%
12	Company L	Not committed	3.2	10,711	2.4%
13	Company M	Not committed	4.1	8,103	2.3%
14	Company N	Not committed	3.2	10,113	2.3%
15	Company O	Not committed	1.9	12,403	1.8%
16	Company P	Not committed	2.4	8,079	1.4%
17	Company Q	Not committed	3.2	6,132	1.4%
18	Company R	Approved	1.7	5,708	1.3%
19	Company S	Not committed	3.2	5,615	1.2%
20	Company T	Not committed	3.2	5,420	1.2%

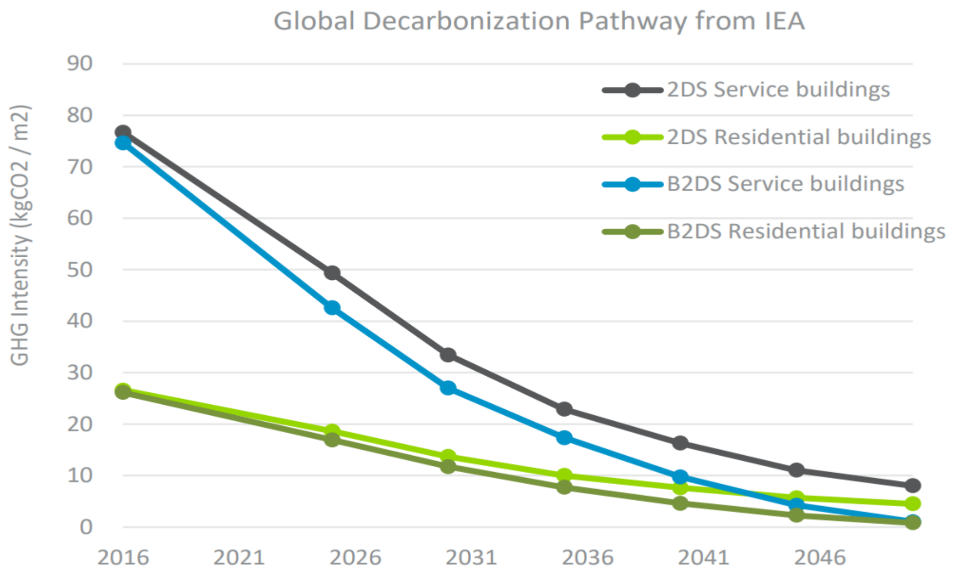
Step 3. Target Ambition SDA

A financial institution can align its real estate and mortgage portfolios with the Paris Agreement and set an emissions reduction target using the Sectoral Decarbonization Approach (SDA):

Emissions intensity (kgCO2e/m2) of real estate and mortgage portfolios of financial Institution:

$$\frac{\sum tonnes\ GHG\ from\ real\ estate}{\sum m2\ of\ real\ estate}$$

Potential target output: Financial institution A commits to reduce its mortgage/real estate portfolio GHG emissions ___% per m2 by 2030 from a 2019 base year.



Source: IEA ETP 2017

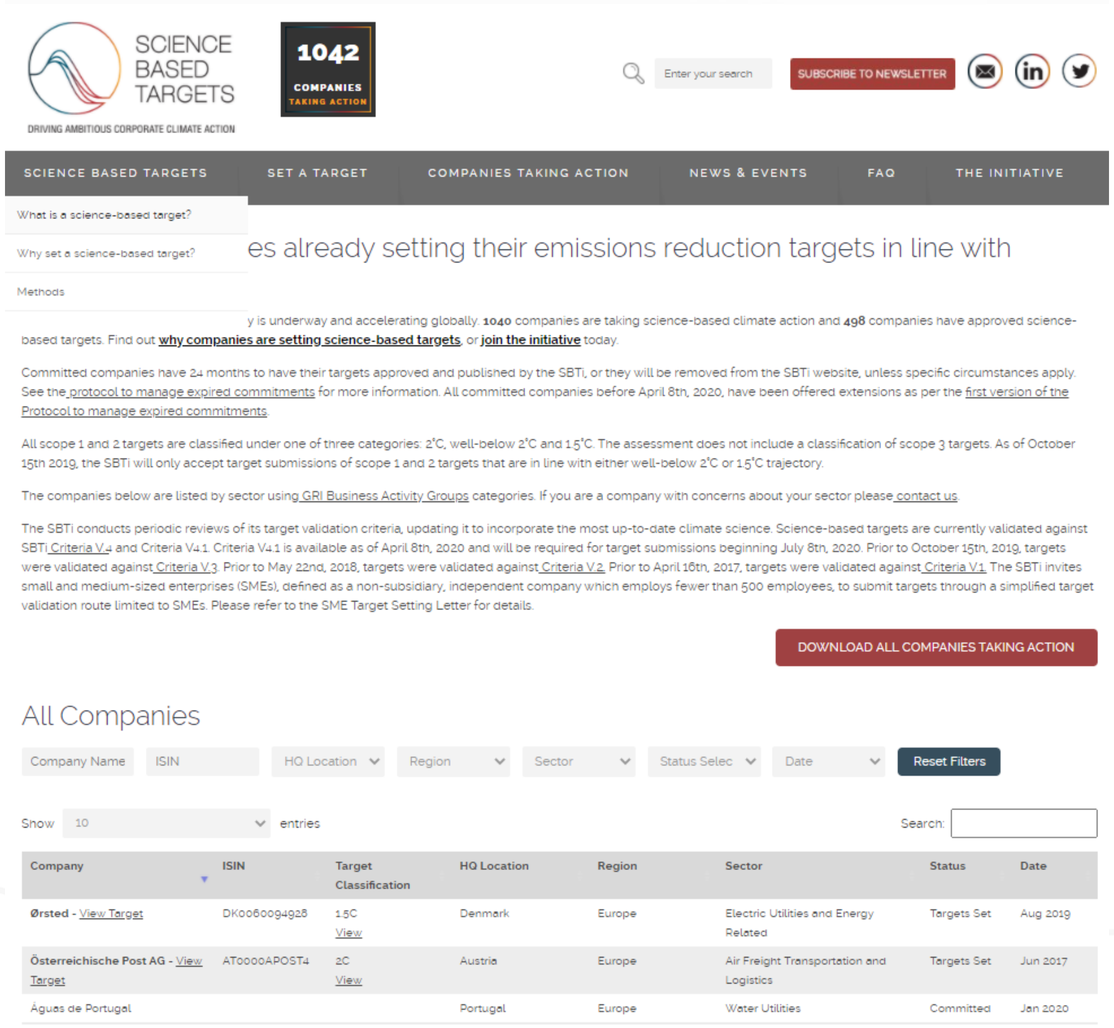
Step 3. Target Ambition Portfolio Coverage + Temperature

Target Level of Ambition: Financial institutions shall commit to having a portion of their borrowers or investees set their own approved science-based targets such that the financial institution is on a linear path to 100 percent portfolio coverage by 2040 (using a weighting approach in the SBT Finance Tool).

For example, a financial institution starting with 10 percent coverage in 2020 would need to increase coverage by 4.5 percent per year:
(90/ (2040 – 2020) = 4.5)

and reach at least 32.5 percent:
(10 + [5 x 4.5] = 32.5)
coverage by 2025.

Potential target output: Investment firm A commits that 30% of its equity portfolio by market capitalization will have science-based targets by 2024.



SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

THANK YOU FOR LISTENING

Partner organizations

CDP DISCLOSURE INSIGHT ACTION

United Nations Global Compact

WORLD RESOURCES INSTITUTE

WWF

In collaboration with

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Q&A