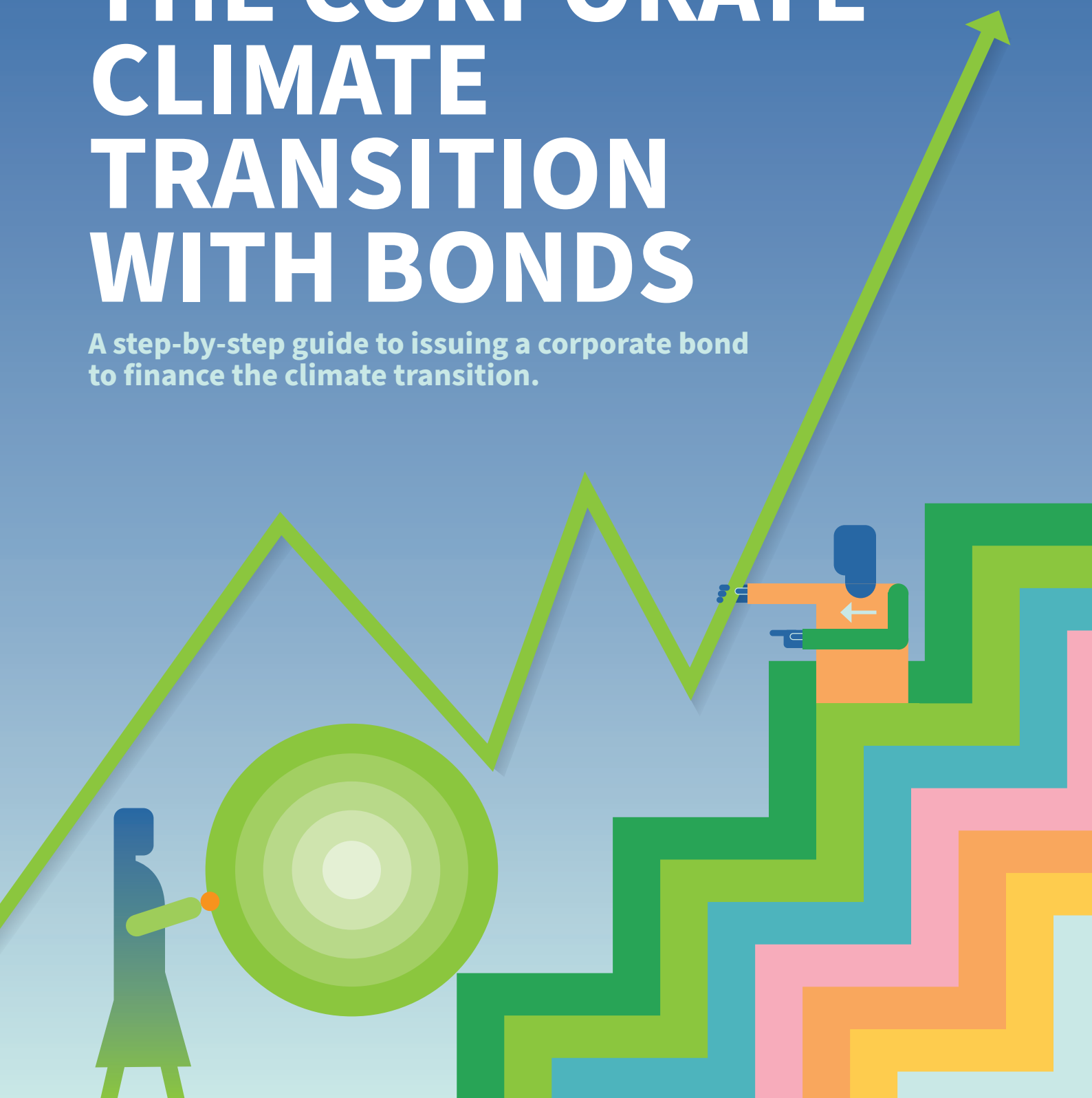


FINANCING THE CORPORATE CLIMATE TRANSITION WITH BONDS

A step-by-step guide to issuing a corporate bond to finance the climate transition.



Climate Bonds INITIATIVE

 **European Bank**
for Reconstruction and Development



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Acronyms

- EBRD:** European Bank for Reconstruction and Development
- GHG:** Greenhouse gases
- GSS:** Green, social and sustainability
- GSS+:** GSS, SLB, and transition
- ICMA:** International Capital Market Association
- KPIs:** Key performance indicators
- NDC:** Nationally Determined Contributions
- SLB:** Sustainability-linked bond
- SLD:** Sustainability-linked debt
- SPTs:** Sustainability performance targets
- UoP:** Use of Proceeds

Contributors

European Bank for Reconstruction and Development

The European Bank for Reconstruction and Development (EBRD) was created in 1991 to foster the transition towards open market-oriented economies and to promote private and entrepreneurial initiatives. Since then, it has invested over EUR180 billion in more than 6,500 projects across three continents.

The EBRD has committed to dedicate all its investments to support the transition to a green economy by 2023 and be aligned with the Paris Agreement, thereby making investments consistent with curtailing the increase in the global average temperature to well below 2°C above pre-industrial levels, and pursuing efforts to limit that increase to 1.5°C.

The Green Climate Fund

The Green Climate Fund (GCF), a critical element of the Paris Agreement, is the world's largest climate fund, mandated to support developing countries raise and realise their Nationally Determined Contribution (NDC) ambitions towards low-emission, climate-resilient pathways.

Climate Bonds Initiative

Climate Bonds Initiative (Climate Bonds) is an international organisation working to mobilise global capital for climate action. The Climate Bonds Standard and Certification Scheme is a labelling scheme for bonds, assets, and whole entities. The scheme is used globally by bond issuers, governments, investors, and the financial markets to prioritise investments which genuinely contribute to addressing climate change.

Introduction

To meet the Paris Agreement goals, all sectors of the global economy must rapidly decarbonise including the hard-to-abate sectors. Climate transition finance has a vital role to play in corporate transition plans to achieve a whole-economy decarbonisation. This document provides a step-by-step guide for corporate issuers on how to prepare and issue a bond to finance their climate transition. Highlighting examples of best practice, it follows the Climate Bonds Hallmarks for a credible transition and International Capital Market Association (ICMA) guidance on climate transition finance and principles on sustainable finance instruments.

This guide covers three thematic debt labels: green, sustainability, and sustainability linked. All three labels can be used for the climate

transition which can be directly linked to the implementation of a corporate issuer's strategy to decarbonise. These bonds share the same financial characteristics as equivalent vanilla products in terms of seniority, maturity, and credit rating, and rank on equal footing (pari passu) with other instruments of the same seniority from the same issuer in the event of bankruptcy. The main difference is the alignment of the bonds with standards and guidelines on financing the climate transition set by internationally recognised organisations. The issuer explains how the bond's proceeds will contribute to its climate strategy including the level of disclosures market participants expect.

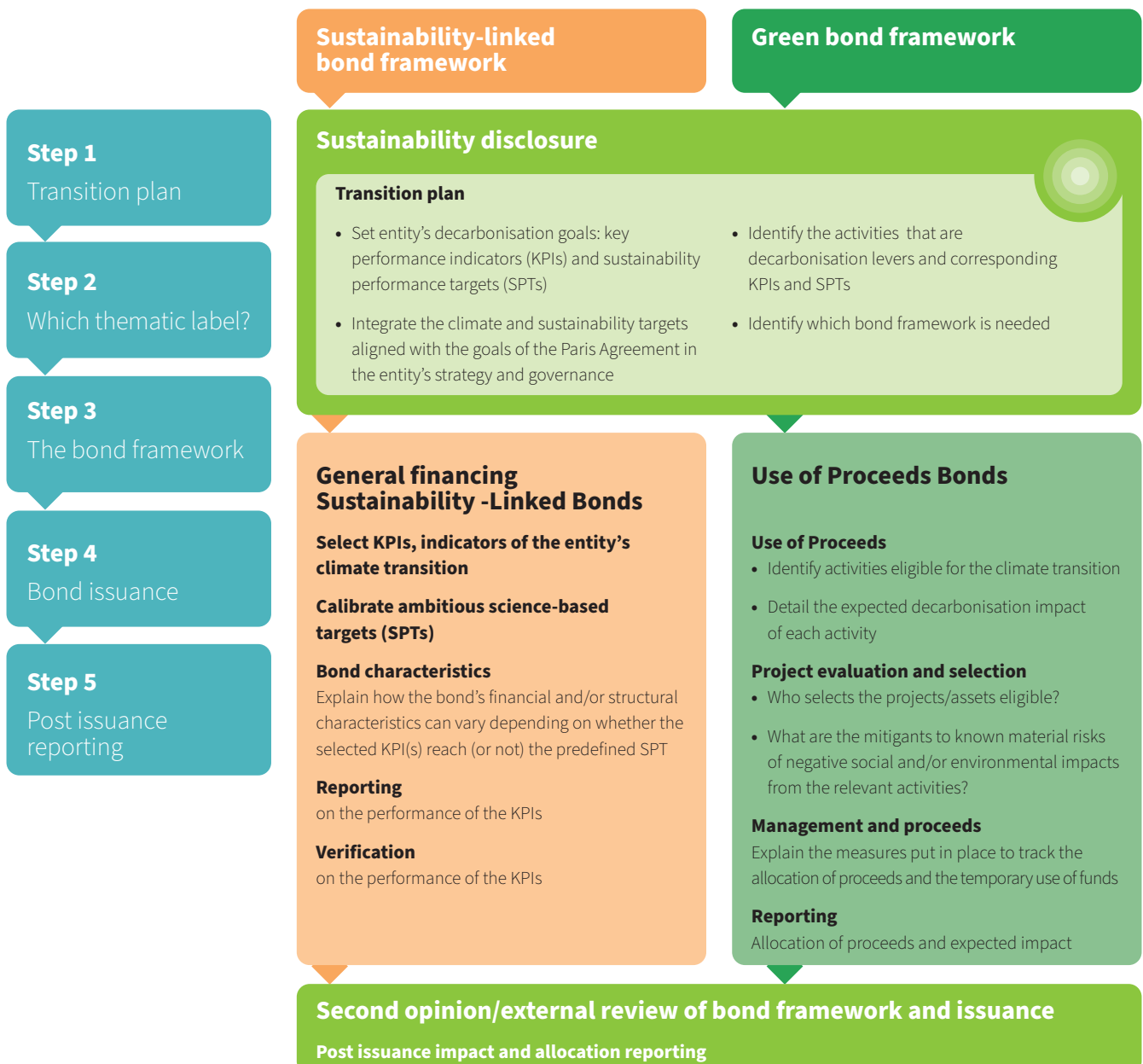
This guide uses the term transition-linked bonds to refer to the universality of bonds that can be

used to finance a corporate climate transition. The document provides entities with step-by-step guidance, using recommendations from leading organisations on the creation of a credible transition plan to achieve net zero in accordance with the disclosure frameworks required by climate transition-linked bonds.

The flow chart below illustrates the key steps in the process of issuing a transition-linked bond.

This guide has been designed to help the corporate entity along its transition journey. It begins with a recap of the need for transition finance, and following a description of the decision-making process, presents five steps to illustrate the typical journey an entity will follow to issue a bond.

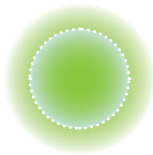
Key steps in the process of issuing a transition-linked bond



Background and overview

What is climate transition finance?

As greenhouse gas (GHG) emissions continue to rise across all economic sectors globally, there is a growing recognition that finance in support of climate mitigation goals must be scaled up and consistent with a pathway towards a low-carbon economy. This means that finance must take a dynamic and forward-looking view of corporate decarbonisation journeys and be inclusive of geographies and sectors, especially emissions-intensive ones. Climate transition finance refers to finance earmarked to fund this dynamic process of decarbonising an entity. Climate transition finance can be seen as a sub-set of green finance because it contributes to a better environmental outcome.



Transition-linked bonds can be used by corporates to finance their climate transition either as Use of Proceeds (UoP) bonds or Key Performance Indicator (KPI)-linked general purpose bonds:

- **UoP bonds**, such as green or sustainability bonds, fund projects with specific and dedicated environmental and/or social benefits. Adhering to standards and predetermined UoP categories is key to defining and disclosing their impact.
- **KPI-linked bonds**, such as sustainability-linked bonds (SLBs), are used for an issuer's general-purpose financing to set ambitious, realistic, and explicit sustainability targets at the corporate level. They involve penalties or rewards linked to not meeting or meeting pre-defined and time-bound sustainability performance targets (SPTs) for each of its predetermined KPIs.

Romanian-based

Autonom Services S.A.

is a privately-owned car lessor predominately offering operating leasing services in Romania. In 2021, the entity priced a USD54m SLB with an interest rate of 4.1% linked to one KPI: the average CO₂ intensity, expressed in gCO₂/km, and computed in relation to the Worldwide Harmonized Light Vehicles Test Procedure.

The company has set itself an ambitious SPT of a 25% reduction in the carbon intensity of its fleet by 2025 from a 2020 baseline, and a 51% reduction by 2030.



Air Liquide S.A., is a French multinational and a market leader in industrial gases and services. The entity has established a sustainable financing framework which can be applied to green, social, or sustainability bonds. Eligible project categories for green UoP are stated as: anaerobic digestion of bio-waste, landfill gas capture and utilisation, capture and transport of CO₂, hydrogen production and storage etc., manufacture of O₂ and N₂ for climate mitigation purposes, and green buildings. In May 2021, Air Liquide issued a 10-year maturity EUR500m (USD610m) green bond with a fixed coupon of 0.375%. By May 2022, the UoP had been mobilised for 17 green projects.



Tokyu Fudosan

Holdings is a Japanese real estate company active in urban development, strategic investment, property management and operations, and real estate agency. In 2021, the entity priced a JPY10bn (USD73m) SLB with an interest rate of 0.3% linked to two SPTs:



SPT1: Reducing GHG emissions by 46.2% by 2030 (KPI1),

KPI2 and SPT2: Achieving carbon negative status by 2025 (the entity's contribution to CO₂ emissions reduction, including the generation of renewable energy, exceeding its CO₂ emissions).

Failure to achieve either of the SPTs will result in the following penalties to be paid at the maturity of the bond:

SPT1: 0.25% of the amount of issuance,

SPT2: 0.25% of the amount of issuance.

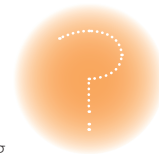
The penalties will be paid to the entity's conservation-focussed foundation, the Midori wo Tsunagu Project or other organisations with similar objectives.

Green, sustainability and sustainability-linked bonds have been and still are used to finance projects that have a positive green impact but without the ambition of implementing an entity's decarbonisation strategy. This guide focuses explicitly on describing these bonds in the context of decarbonising a corporate issuer's strategy.

Why climate transition finance?

Financing the corporate climate strategy

Governments have committed to achieving net zero with the goal of limiting global warming to 1.5°C by announcing Nationally Determined Contributions (NDCs), which are a country's self-defined national climate pledge under the Paris Agreement. In response, sector and business associations have disclosed sector-based roadmaps to net zero. To achieve these ambitions and commitments, corporates must decarbonise their business models and scale climate solutions to gradually replace GHG-emitting assets, products, and services.



Climate transition finance allows corporates to better manage the risks related to regulatory changes and divestments while allowing them to seize new opportunities and market trends. It is particularly needed by corporates active in the hard-to-abate sectors such as heavy industry, agriculture, or energy that generate the greatest global GHG emissions and will require substantial investment to upgrade their technology and infrastructure.

Regulatory change will drive transition focus

Regulatory changes are a major driver for corporates to accelerate their climate transition and access dedicated financing instruments. As countries enshrine their commitments to delivering net zero in national law, a growing number of regulations are set in place to mandate corporate Environmental Social and Governance (ESG), climate impact disclosure, and facilitate the flow of finance towards climate solutions. The Principles for Responsible Investment (PRI) counted around 900 policy interventions alone, as of April 2022.¹ These interventions can be classified in four broad categories:

- **Corporate disclosure requirements on ESG and climate transition:** mandatory or voluntary corporate ESG disclosures have been effective for several years in numerous countries (e.g., Thailand 2017, Vietnam 2013, and India 2022). Additional requirements specific to the climate transition have emerged over the past two years: for instance, the United Kingdom and the EU will require entities to disclose climate transition plans as soon as 2024. The reporting will impact non-financial corporates but the inclusion of financial corporates is under discussion.²

- Financial disclosure requirements:** the initial recommendations of the Taskforce on Climate-related Financial Disclosure (TCFD) are becoming mandatory in various jurisdictions such as the UK and Japan. In addition, the International Sustainability Standards Boards (ISSB) set a voluntary global baseline in mid-2023 that received strong support from G7 and G20 countries and is expected to be incorporated into national laws. ISSB disclosure standards ask for entities' exposure to significant climate-related risks and opportunities and transition plans.^{3,4} Similar requirements are being proposed by the United States Securities and Exchange Commission.

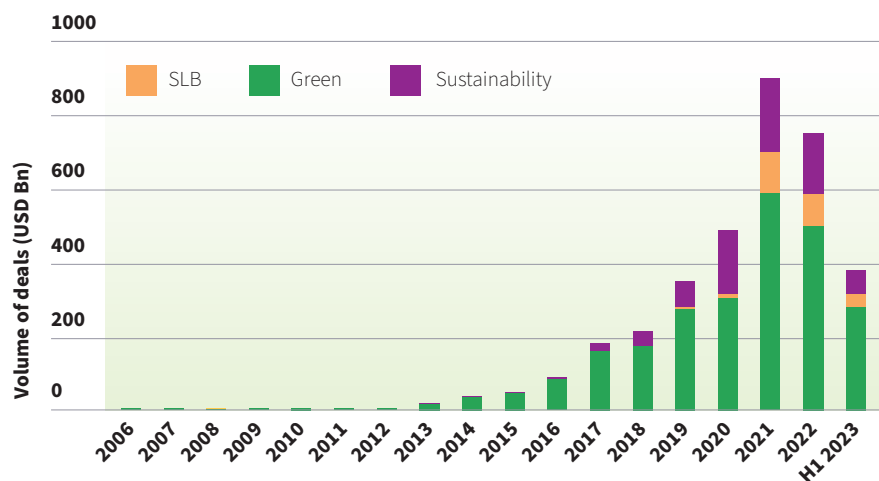
Appendix 1 lists a non-exhaustive list of effective and forthcoming regulations.

- Sustainability or climate taxonomies:** a taxonomy is a set of criteria, often presented as a list of eligible activities that provides the basis for assessing whether a financial asset is deemed sustainable. They are thus created to define eligible green and, for some taxonomies, transition activities. Examples are the taxonomies of the European Union (EU), South Africa, Mexico, Georgia, and the work done by various development banks.⁵
- Carbon border measures, tax incentives and other credit facilities** are set to create incentives for investing in climate-aligned technologies. In 2022, the European Commission introduced a carbon border adjustment mechanism (the CBAM regulations) that will equalise the price of carbon between domestic products and imports. In parallel, governments have announced an increased number of tax incentives or subsidies to accelerate the transition such as the US Inflation Reduction Act (IRA), and China's 'Credit against tax payable' for investments in certain environmental equipment.

To keep track of the fast rate of adoption of new policies and regulations, Fitch has derived a policy tracker.⁶

Regulations also impact financial market participants and transition-linked bonds contribute to the decarbonisation of investors' portfolios and facilitate their own ESG reporting requirements. This also impacts corporate access to capital markets. Therefore, motivation to align investments with climate change reduction efforts are also driven by a growing demand from institutional and retail investors worldwide. Members of the Glasgow Financial Alliance for Net Zero (GFANZ), representing around 40% of global private financial assets, have also committed to setting near-zero targets, which will have a direct impact on capital allocation decisions, favouring entities with credible transition plans.⁷

Volume of aligned deals recorded by Climate Bonds



Source: Climate Bonds Initiative

Market trends

The global green, sustainability and sustainability-linked bond market has exhibited year-on-year growth and shown resilience in the current inflationary environment, which reflects the strong demand for these instruments from investors. Benefits for issuers were described in Climate Bonds 2020 Green Bond Treasurer Survey, which include public recognition and marketing as well as the possibility to obtain cheaper pricing (greenium).⁸ Cumulative issuance reached USD3.46tn during the first half of 2023.⁹

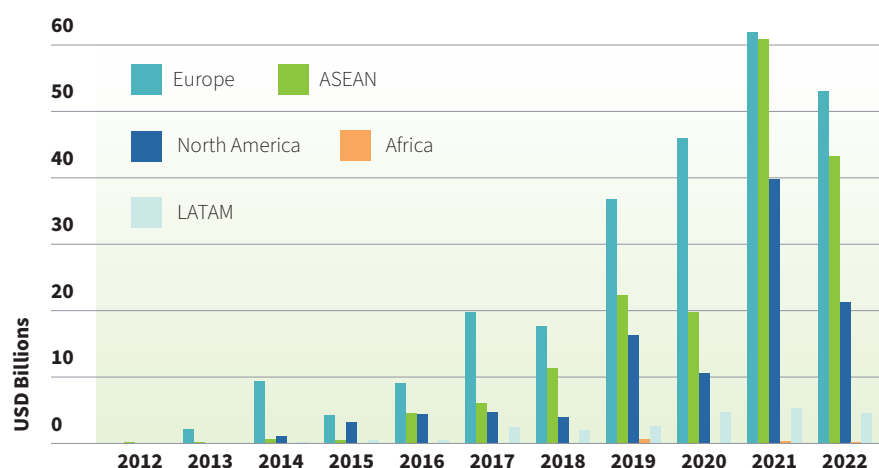
Non-financial corporates have priced green bonds with an average deal size of USD200m over the past five years. The sustainability-linked label is a more recent market development and is embraced by entities in hard-to-abate sectors like cement or steel. In 2022, 78% of SLB volume originated from non-financial corporates with notional volumes mainly within the USD100m to USD500m range. While the bulk of the issuance comes from developed countries, the number of deals from middle- and low-income countries such as Brazil, South Africa, Turkey, Morocco, Indonesia, and Chile is growing. A full market review is given in Climate Bonds State of the Market report.¹⁰

Climate Bonds has published 16 research reports on the topic of Green Bond Pricing in the Primary Market.¹¹ This proprietary research developed the concept of the greenium (cheaper pricing for bonds bearing the green, sustainable or sustainability-linked label) and continues to explore pricing dynamics of green and other labelled debt. The findings of this research have consistently demonstrated that:

- Green bonds achieve higher book cover and spread compression compared to vanilla equivalents in the primary market, on average.
- Around 30% of bonds achieve a greenium.
- Green bonds tighten more than the comparable vanilla basket and comparable indices based on observations made seven- and 28-days post-issuance.

The most recent report, examining green bonds priced in H1 2023, revealed that 66% of green bonds were allocated to investors describing themselves as green or socially responsible. Furthermore, numerous green bond issuers emphasised that the green label supported deal placement in volatile markets.

Aligned green bonds from non-financial corporate issuers



Source: Climate Bonds Initiative

Green, sustainability and sustainability-linked bonds can also obtain better pricing even in a market with rising yields. Based on deals priced in H2 2022, Climate Bonds determined that on average, bonds bearing thematic labels priced closer to their yield curves compared to matched vanilla pairs.

The foundations of climate transition finance

Since climate transition finance is directed at decarbonisation of a corporate entity, investors must be able to assess the economic and environmental integrity of the entire business strategy. The most suitable instrument to communicate this information is a credible and practicable corporate-level climate transition plan.



A climate transition plan is a time-bound action plan that outlines how an organisation will pivot its existing assets, operations, and entire business model towards a trajectory aligned with the latest and most ambitious climate science recommendations i.e., halving GHG emissions by 2030 and reaching net zero by 2050, thereby limiting global warming to 1.5°C.^{16,17}

It is increasingly recognised that a climate transition plan needs to factor in the needs of workers, suppliers, communities, and consumers because social acceptance is vital for any plan to be realised. A just transition plan aims at connecting actions on climate change with inclusive development pathways.

Further information can be found on page 10 regarding existing best practice guidance and standards on transition plans.

Corporate transition plan overview, Grupo Bimbo

Grupo Bimbo, S.A.B.

de C.V. (Bimbo) is a Mexican multinational food company with a worldwide presence in the bakery sector. By 2030, Bimbo's 2022 transition plan targets a 50% emissions reduction in **scope 1**, 100% in **scope 2**, and 28% in **scope 3** compared to a 2019 baseline; and net zero by 2050. To implement its targets, Bimbo has pledged to:



1. Reduce scope 1 emissions via investing in zero-carbon vehicles and electric solutions in its factory,
2. Move to renewable energy sources to cut scope 2 emissions,
3. Reduce waste, engage with the supply chain, and invest in regenerative agriculture to cut scope 3 emissions.

In 2023, Bimbo published a sustainability-linked bond framework and issued an MXN12bn bond.

Corporate transition plan overview, Boliden AB

Boliden AB

(Boliden) is a Swedish multinational metal, mining, and smelting company, which produces zinc, copper, lead, nickel, silver, and gold, and has operations in Sweden, Finland, Norway, and Ireland. It is active in the entire value chain, from exploration and mining, to smelting and recycling. Boliden has stated its ambition to become a sustainable metals producer. Boliden's 2023 transition plan targets a 40% reduction of absolute CO₂ emissions in scope 1 and 2, and 30% reduction in scope 3 by 2030 compared to a 2021 baseline. It has a long-term goal of reaching net-zero carbon emissions by 2050. To implement its medium-term target, Boliden is investing in various alternative reduced-carbon intensive technologies and acknowledges that to meet its long-term climate objectives, alternative low-carbon processes will be required; hence the entity is also investing in research and development activities.



In 2022, Boliden published a green finance framework and by the end of the year, had priced five green bonds with a cumulative value of SEK3.5bn (USD344m).

The UK Transition Plan Taskforce

recommends that a good practice transition plan should cover:

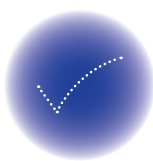
1. An entity's high-level ambitions to mitigate, manage and respond to the changing climate and to leverage opportunities of the transition to a low-GHG and climate resilient economy. This includes GHG reduction targets (e.g., a net-zero commitment);
2. Short, medium and long-term actions to achieve the strategic ambition, with details on how those steps will be financed;
3. Governance and accountability mechanisms that support delivery of the plan and robust periodic reporting; and
4. Measures to address material risks to, and leverage opportunities for, the natural environment and stakeholders such as the workforce, supply-chains, communities, or customers, which arise as part of these actions.

When choosing decarbonisation targets, an entity should consider that a transition plan is not a one-off exercise but a process document that needs to be updated and improved at least annually. Stakeholder expectations of what a credible transition plan looks like, as well as the means to reach ambitious decarbonisation targets, will become clearer as technologies progress, policies change, and industrial and financial transitions unfold.

There are multiple impediments to the achievement of rapid near-term decarbonisation and reaching net zero by 2050 at the sector and regional levels. When designing transition plans, corporates can provide transparency on the logic behind specific choices and commit to working-out solutions via supplier engagement, R&D or advocating for enabling policies.

Standards and guidelines for thematic labels

ICMA's mission is to promote resilient well-functioning international and globally coherent cross-border debt securities markets. ICMA provides guidance and common expectations to capital markets participants on the practices, actions, and disclosures to be made available when raising funds in debt markets for climate transition-related purposes.



It is market practice that the issuance of a transition-linked bond should follow a standard and/or ICMA principles. Several voluntary or jurisdiction-specific bond standards for transition-linked bonds co-exist worldwide and an indicative list can be found on the PRI website. ICMA principles have been integrated in the EU Green Bond Standard (GBS) and the Climate Bonds Standard Version 4.0, which are widely used. ICMA has also published principles on green, sustainability and sustainability-linked bonds separately to act as guidelines that recommend structuring features, disclosure, and reporting for each label. These bonds can be used for a wide range of sustainability related projects. In the context of climate transition, ICMA has published guidance on issuer-level disclosures and climate transition strategies in the Climate Transition Finance Handbook.¹² It provides the following definitions:

UoP bonds:

1. Green Bonds are any type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible green projects which are aligned with the four core components of the Green Bond Principles.¹³

Standards for green bonds differ mainly by the reference to a regional or international taxonomy, for instance the Climate Bonds Taxonomy and Certification scheme, the EU Green Bond Standard, China's guidelines for issuing green bonds, and ASEAN green bond standards.

2. Sustainability Bonds are any type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance a combination of both green and social projects.¹⁴

The Climate Bonds Standard version 4.0

employs rigorous science-based Criteria to define which projects and assets are consistent with achieving the goals of the Paris Climate Agreement and therefore eligible for inclusion in a Certified debt Instrument. Climate Bonds is expanding the range of sectoral Criteria to additional high-emitting sectors, usually called the transition sectors, starting with cement, chemicals, hydrogen and steel. It offers assurance across UoP and KPI-linked bond instruments (or SLBs), which typically refer to the climate performance of a corporate entity and require an in-depth assessment of the entity's transition plan. SLBs and their reference entities can be certified under two labels:

1. Transition label: for SLBs or entities having climate mitigation performance targets that do not align with Climate Bonds Standard Sector Criteria but with targets and a transition plan that will ensure they will be before 2030.

2. Aligned label: for SLBs or entities having climate mitigation performance targets that align with Climate Bonds Standard Sector Criteria and with targets and a transition plan that will ensure they remain aligned.



Climate Bonds Certification will enhance the market positioning of the entity's climate transition credentials given that Certification includes elements of the plan that might not be publicly disclosed, and so acts as a gauge of transition plan credibility for investors.

General purpose bonds:

1. SLBs are any type of bond instrument for which the financial and/or structural characteristics can vary depending on whether the issuer achieves predefined sustainability/ ESG objectives. In that sense, issuers are thereby committing explicitly (included in the bond documentation) to future improvements in sustainability outcomes within a predefined timeline so SLBs are a forward-looking, performance-based instrument. Those objectives are (i) measured through predefined KPIs and (ii) assessed against predefined SPTs.¹⁵

The issuance process

Getting organised and setting milestones

The success of the climate transition and its credibility with investors depends on the degree to which sustainability is integrated into the business together with the level of social acceptance of the corporate strategy. The senior leadership team must be united in its support for the transition journey but contributions from a broad range of stakeholders are also required, drawing upon internal resources from multiple teams including sustainability, strategy, finance, risk and audit, operations, Information Technology (IT), communication, and legal.



Timelines

The time and effort required to formulate an entity's first transition plan is highly dependent on its size, extent of climate materiality and the complexity of its business model. A key factor is the extent to which sustainability disclosures already form part of business operations and most medium and large corporates have started to devise a climate strategy with related reporting in response to regulatory, investor or client pressure. Measuring GHG emissions can be particularly challenging (please refer to the glossary for scope 1,2, and 3 definitions) especially under material scope 3 emissions when the corporate operates in multiple locations. While a complete set of disclosures is not a prerequisite for transition-linked bond issuance, entities would typically need at least three years of material scope GHG emissions disclosure to establish a baseline, credible targets, and monitor progress.

Internal team

Transforming the business model, operations, assets, and stakeholder relationships towards low-emission, climate-resilient pathways requires leadership from senior management starting with the CEO, CFO, and extending to the Board, which should appoint members with appropriate expertise in sustainability, if not already represented. Given the transition will ultimately impact every area of the business and will require cross-functional collaboration, sustainability and climate considerations should be embedded in the corporate culture to facilitate execution.

To begin its transformation, an entity will need to assess its GHG emissions, starting with scope 1 and 2 emissions, and derive a decarbonisation or low-carbon pathway. This will be the mandate of a sustainability team whose size will grow as the transition is implemented. Online guidance and training are provided by several international organisations quoted in this guide. Alternatively, consulting companies can be appointed.

The following table gives a list of roles and responsibilities for illustration purposes:

Role	Responsibilities	Collaborators
Board	Oversight of entity transition plan and monitoring of execution, including executive management accountability, with appointment of appropriate committees and task forces	
CEO, sometimes CFO	Drive the execution of the just transition plan	All teams
Sustainability team	Draft, monitor and disclose environmental impacts and transition KPIs.	Operations teams, IT
	Propose the levers of decarbonisation, including the expected impact of each lever	Operations teams
	Draft transition plan	Strategy
	Draft the transition financing framework	Investment bank/consultant, finance/treasury team
Risk team	Identify and assess climate risks, response measures and opportunities	Sustainability team
Internal audit	Independent assurance on sustainability disclosure	Board/senior management
Strategy team	Integrate the just transition into the overall business strategy	Finance team
Finance/ treasury team	Facilitate investor engagement to determine expectations, and preferred standards and disclosure practices	
	Select an appropriate taxonomy against which to classify and evaluate projects, assets, and expenditures suitable for inclusion in thematic bonds	Sustainability team, operations teams, or external consultant
	Channel the costs of sustainability-related objectives through formal budgeting and forecasting process	
	Prepare finance plan for inclusion in the transition plan	
	Establish process for disbursement and management of proceeds of the bond	
	Post issuance reporting 1. Establish frequency and nature 2. Assign responsibilities for delivery, set timelines 3. Identify a third party for the assurance process	Sustainability team, operations teams
IT	Design and implement a tagging system to identify suitable projects, assets, expenditures for inclusion in thematic bonds	Finance team, operations teams
	Design a system to report and track sustainability metrics	Sustainability team, operations teams
Legal	Prepare the bond issuance legal documentation	Finance, sustainability team, treasury

External reviewers, underwriter, and investors

The bond issuance process usually entails the appointment of underwriters as well as financial and legal advisors. Transition-linked bond issuance is no different, with only the addition of external independent reviewers and internal support to manage the non-financial requirements. The following table provides an illustrative list of external parties.

Role	Responsibilities	Collaborators
Underwriter (investment banks and other firms)	Help design the sustainable financing framework and sell the bonds	Finance/treasury
External reviewers or certifiers/Second Party Opinion (SPO)	Review or certify the alignment of the bond framework with selected principles or standards	Finance/treasury
Sustainability reporting consultant	Independent and external verification of KPIs pre- and post-issuance	Sustainability team and finance/treasury
External Auditor	Management of proceeds and allocation reporting	Treasury
Investors	Review the bond framework and engage with the issuer	

Step 1: Building your transition plan and disclosing it

The transition plan plays two main roles in the bond issuance process.



1. It informs how the bond will contribute to the issuer's decarbonisation effort by establishing a list of eligible project categories for the UoP, and decarbonisation targets.

2. It credibly positions the bond as an instrument to finance the transition, particularly for issuers operating in hard-to-abate sectors, by detailing the issuer's strategy to investors. Therefore, the projects and activities financed by the bond must be clearly linked to the overall strategy of the entity.

A consensus is emerging among official and non-governmental organisations about the information contained in a transition plan. The following diagram draws from existing guidance rather than creating a new framework and illustrates how the main parts of the transition plan, typically seen in most guidance, inform the bond issuance process.

Establishing the baseline

Corporates starting their transition journey should measure their GHG emissions and establish a baseline for GHG emissions scopes 1, 2, and 3. A detailed record per source of emission will help to assess which activities or equipment upgrades would have the most impact on the emission cuts and facilitate impact reporting post-issuance.

How to ensure credible GHG emissions disclosure and baseline

1. The metrics should follow a GHG accounting standard and align with sectoral practice. They are typically expressed in absolute terms although intensity metrics are standard for some sectors.

2. The entity boundaries used to estimate the GHG emissions should be transparent and if they differ from the whole entity, the reason for the difference should be given.

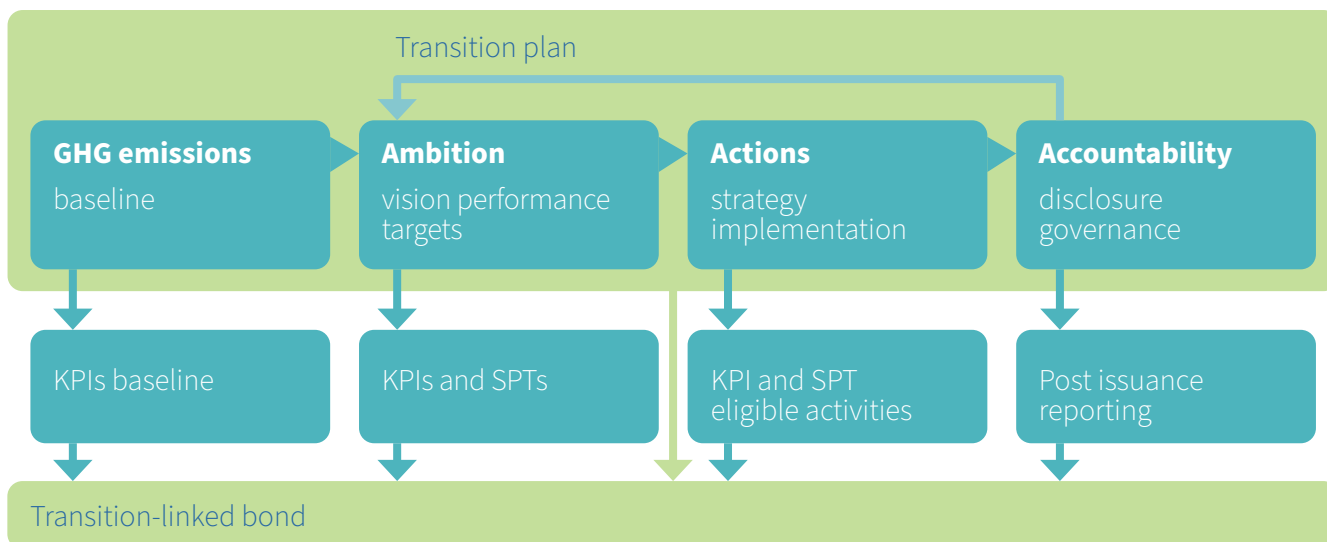
3. As the end goal is the decarbonisation of the entity, absolute GHG emissions should always be disclosed.

4. If possible, at least three years' worth of emissions should be recorded and disclosed before choosing a baseline year, representative of the entity's GHG emissions, against which decarbonisation progress will be calibrated. An independent external review of the relevant historical data points should also be included with a justification of the choice of baseline.

5. Scope 3 is normally the most challenging to establish and requires engagement with the value chain. Therefore, entities starting the process should disclose a timeline to identify and measure scope 3. GHG Protocol published guidance on measuring and disclosing scope 3.^{18,19}

6. Disclosure through sustainability-related standards or frameworks such as those provided by not-for-profits CDP and Global Reporting Initiative (GRI) provides a thorough overview of the entity's social and environmental impacts and commitments.

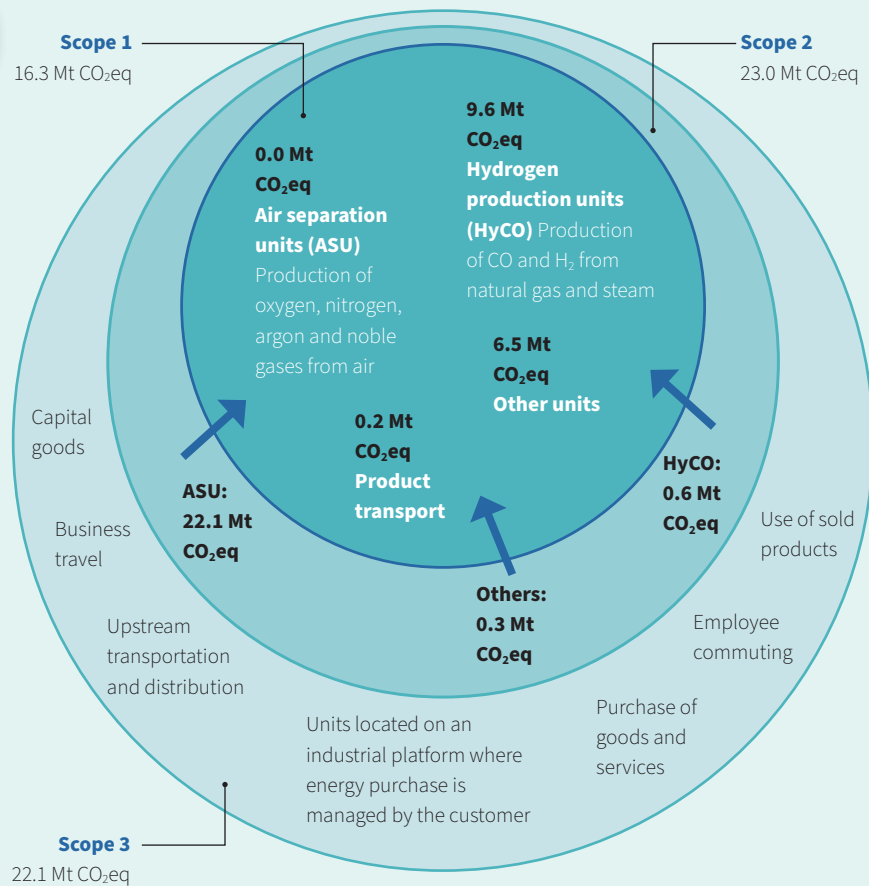
Anchoring the transition-linked bond in the corporate climate transition plan



Air Liquide is a French multinational and a market leader in industrial gases and services. Its GHG emissions accounting considers the six GHGs highlighted by the Kyoto Protocol and is carried out in accordance with the GHG Protocol's carbon accounting method. Its GHG emission breakdown is summarised in the following infographic. Tables and texts provided in the *Air Liquide Sustainability Report 2022* provide additional details such as explanations about emissions variations from one year to another, as well as the emissions for each relevant scope 3 category.³²



Figure 1: Air Liquide, Universal Registration Document 2022



How are GHG metrics used in transition finance?

Information extracted from transition plan	Purpose	Criteria
GHG emissions: absolute and intensity metrics	<ol style="list-style-type: none"> The metrics can be used as potential KPIs for SLBs The metrics will be needed for post-issuance impact reporting 	<ol style="list-style-type: none"> Metrics are measurable on a consistent methodological basis and can be benchmarked, typically via a GHG accounting standard and by following the sectoral standard Metrics are externally verifiable and subject to an independent verification and assurance provider
Baseline year for improvement of GHG emissions	Reference point selected for improvement assessment	The entity should explain the rationale driving the choice of baseline year

In addition to mandatory disclosures being requested by a growing number of jurisdictions, various institutions set disclosure standards as indicated in the box below.

Accounting methods	Non-governmental disclosure standards	Disclosure standards common to various jurisdictions
GHG Protocol ⁴¹ ISO ⁴²	CDP (Disclosure Insight Action) ⁴³ Global Reporting Initiative ⁴⁴	International Sustainability Standards Board (ISSB) ⁴⁵ TCFD ⁴⁶

Linking the transition plan to the bonds to ensure credibility

Various organisations have written comprehensive guidance on what constitutes a credible transition plan and are listed below. To ensure a just transition, extra guidance has been provided by the World Benchmarking Alliance and the Council for Inclusive Capitalism. The Grantham Research Institute provides a framework on financing a just transition to inform entities how investors might incorporate the social dimension into their assessment, stewardship, capital allocation and policy activities.²⁰

Before starting transition planning, the teams involved in the process might find it useful to

Guidance on transition plans

Key principle:

United Nations.³³

Practical guidance:

CDP and UK Transition taskforce.^{34,35}

Recommendations to ensure credibility:

OECD and GFANZ.^{36,37}

On a Just Transition:

World Benchmarking Alliance, Council for Inclusive Capitalism, and Grantham Institute.^{38,39,40}

consult the practical guidance, information, and case studies published by Accounting for Sustainability, which address the issue of integrating sustainability into business processes and decisions.²¹ Additionally, Climate Bonds and the University of Cambridge have focused on the key role played by the CFO in the climate transition.^{22,23}

The following section explains how the main elements of the transition plan, common to most guidance, inform the features of transition-linked bonds and ensure the credibility of the issuer's climate change commitments. It draws from existing governmental and non-governmental guidance on transition plans and incorporates the recommendations from the ICMA Climate Transition Finance Handbook, thereby creating a comprehensive and coherent overview of how to link the bond issuance process to the climate strategy of the issuer.

Ambition vision performance targets

The transition plan begins with a vision outlining what the net-zero entity will look like. The level of its ambition will be determined by its choice of science-based, 1.5°C-aligned, decarbonisation pathway, which determines the rate at which the entity should decarbonise its activities.

The decarbonisation pathway(s) will set short-, medium- and long-term targets for each activity's GHG emission performance indicator. For entities with activities in various sectors, a different pathway per activity can be chosen. These targets attest the ambition of the entity to transition and should be disclosed together with the methodology chosen to derive the pathway as a key element of the transition plan.

How to ensure a credible pathway

1. The pathway(s) selected should cover the majority of the GHG emissions of the entity. If scope 3 cannot yet be included, a target date for inclusion should be disclosed.
2. Transition plans should reflect the urgency to act, the most credible of which will choose a 1.5°C-aligned decarbonisation pathway, to ensure no or limited overshoot of 1.5°C globally above pre-industrial levels. The lack of national net-zero targets, the setting of a national target with a later date than 2050, or the lack of sufficient enabling policies to incentivise entity decarbonisation have been highlighted by the OECD as factors that could prevent entities operating in certain jurisdictions from being able to comply with a 1.5°C-aligned trajectory.²⁴ As an entity's

How can decarbonisation pathways be used in transition finance?


Metric/project or asset taken from the transition plan	Purpose	Criteria
Target scope 1, 2, and 3 GHG emissions for short-, mid- and long-term in absolute and – depending on sector – intensity terms for each activity of the entity.	1. SPTs in an SLB 2. Post-issuance impact reporting	SPTs to be aligned with, benchmarked or otherwise referenced to recognised third-party, science-based trajectories where such trajectories exist. When third-party trajectories are not available, industry peer comparison and/or internal methodologies/historical performance should be considered.

Gfanz and **SBTi** have published guidance on science-based decarbonisation pathways and the difference between a 1.5°C aligned and any other temperature of alignment, which is beyond the scope of this guide.^{47,48} However, it is important to note that target dates to achieve net zero and interim reduction targets may vary by sector, even for a 1.5°C alignment, as some sectors must decarbonise more quickly to reach global targets. National and regional science-based sectoral decarbonisation pathways are also available, and some recognised non-governmental organisations have developed sectoral or sector-agnostic, science-based decarbonisation pathways. Target dates and interim reduction targets may differ by jurisdiction as achieving net zero by 2050 globally entails varying levels of effort by different sectors and the ability/capacity to effectively implement the transition varies from one jurisdiction to another. The pathways announced by various governments and organisations may collectively be consistent with limiting the increase in global temperatures to well below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C, with no or low overshoot.

ICMA Methodologies registry lists several initiatives to create pathways and become certified.⁴⁹

SBTi also offers guidance and emissions target validation and is widely used by issuers (Climate Bonds labelled bonds dataset shows that as of mid-2023, about a third of all SLB issuers of projects linked to a GHG emissions reduction or transition to low-carbon activities had been SBTi certified).⁵⁰


Climate Bonds Initiative.⁵¹
Mission Possible Partnership.⁵²
One Earth Climate Model.⁵³
Transition Pathway Initiative.⁵⁴



decarbonisation pathway will be informed by both national commitments and the latest international agreement on climate change, if the entity opts for a national or sectoral pathway that is not 1.5°C aligned, a reasoned and detailed justification should be provided and an alternative Paris-aligned benchmark adopted. Climate Bonds labelled bonds database shows that as of mid-2023, about a quarter of all SLBs with GHG emission KPIs were issuing decarbonisation targets in line with a 1.5°C-aligned pathway.

3. The pathway(s) should be reviewed by an external provider to assess the degree of alignment with sectoral and/or regional pathways.
4. Investors will typically assess the ambition of the entity by comparing the pathways with recognised sectoral pathways and peers.

Heidelberg Materials is one of the world's largest integrated manufacturers of building materials and solutions, represented in over 50 countries, with leading market positions in cement, aggregates, and ready-mixed concrete. The entity expects the demand for sustainable building materials to grow and signed the *Business Ambition for 1.5°C* commitment; a global initiative aimed at limiting global warming to 1.5°C and achieving net-zero carbon emissions by 2050 at the latest. The company has committed to reduce its GHG emissions linked to cement production to 400kg per tonne of cementitious material by 2030 and its target is in line with the Transition Pathway Initiative (TPI) sectoral decarbonisation pathway. This target has been validated by the Science Based Targets initiative (SBTi) in line with its 1.5°C framework.



Actions strategy implementation

This section articulates the climate decarbonisation strategy and the main actions that will be taken to reach the carbon emission reduction targets defined previously. These decarbonisation levers will either ensure the decarbonisation of the activities that have a material environmental impact and/or the diversification into new low-carbon business activities.

The strategy should also ensure an equitable and inclusive transition, involving workers and suppliers, and understand the spill-over effects for communities and consumers. Finally, it should illustrate how it is contributing to the United Nations Sustainable Development Goals (UN SDGs) and any other sustainability metric that is deemed relevant.

The transition plan should be as granular as possible whilst taking competition and confidentiality considerations into account. A credible timeline would use 3–5-year intervals for the short- to mid-term, and 5-to-10-year intervals thereafter until the target date for net zero is reached.

By doing so, the entity justifies which assets eligible for the bond's UoP are needed to transition, and which metrics best capture the decarbonisation effort.

When deciding on the decarbonisation levers, the entity should ensure that its actions will not be detrimental to other environmental objectives such as enhancing biodiversity or water quality. The concept of Do No Significant Harm (DNSH) in investment processes, initially introduced by the European Union but since then widely adopted by various countries (for instance South Africa), ensures that any investment that focuses on a particular environmental objective is not done at the expense of other such objectives.^{55,56} As a result, when assessing the credibility of an entity's climate transition, investors will be looking at targets and metrics across all environmental fields.

It has also become common practice to include provisions that ensure investments do not infringe on social objectives and human rights. The so-called minimum safeguards ensure that companies engaging in sustainable activities meet certain standards relating to human and labour rights, bribery, taxation, and fair competition. The minimum standards have been anchored in guidance issued by the OECD, United Nations Global Compact, International Labour Organisation, and United Nations.^{57,58,59,60}

Enel is an Italian multinational manufacturer and distributor of electricity and gas. Its businesses include green and thermal power generation, electricity distribution, and retail electricity and gas.



Enel has the stated ambition to achieve zero emissions by 2040. It integrated a transition strategy into its overall business strategy with a focus on tackling:

- 1. Scope 1 emissions:** shifting its power generation from thermal to 100% renewables,
- 2. Scope 3 emissions:** promoting the electrification of final energy consumption while gradually exiting the gas retail business.

Enel has defined specific plans to ensure a just transition, which include supporting the vocational requalification of direct and indirect workers of activities affected by the transition.

To achieve its targets, Enel has detailed which actions it will use in the short-, mid-, and long-term to decarbonise each business line, scope of emissions, and the estimated decarbonisation impact.

The following figure summarises some of Enel's commitments:

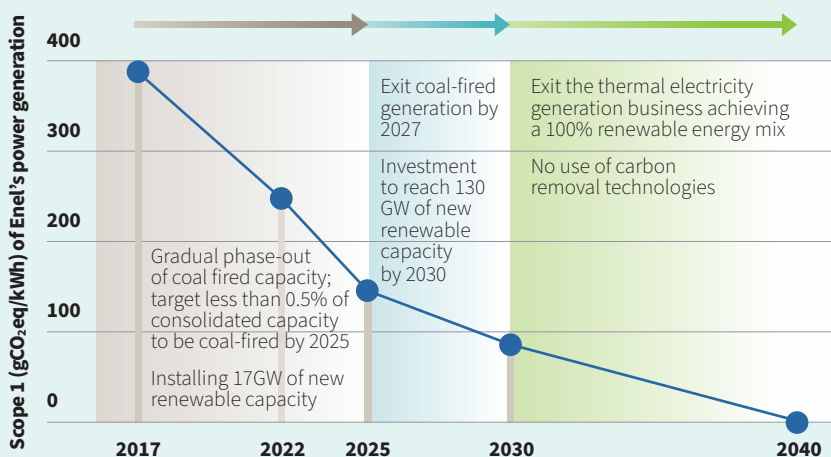
Some of the decarbonisation levers identified in the action plans were chosen as nominated assets for UoP green bonds, namely the development of power generation plants from renewables, and projects related to the transmission, networks and smart grids.

Enel also identified several KPIs that capture its decarbonisation effort and were chosen as part of its 2023 sustainability-linked financing framework:

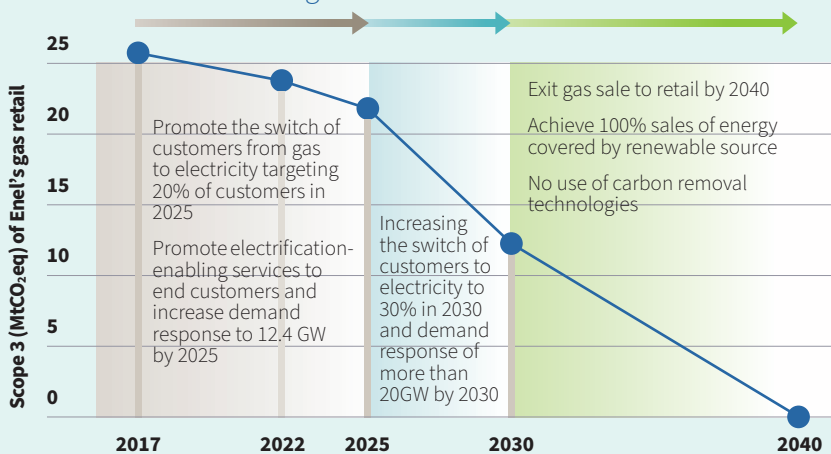
- 1. Scope 1 GHG emissions intensity** relating to power generation (gCO₂eq/kWh).
- 2. Scope 1 and 3 GHG emissions intensity** relating to integrated power (gCO₂eq/kWh).
- 3. Absolute scope 3 GHG emissions** relating to gas retail (MtCO₂eq).
- 4. Renewable installed capacity percentage** (%).
- 5. Proportion of capex aligned with the EU taxonomy** (%).

Source: Enel sustainability report 2022²⁵

Targets (gCO₂eq/kWh) and action plans to reduce scope 1 GHG emissions intensity of Enel's power generation



Targets (gCO₂eq/kWh) and action plans to reduce scope 3 GHG emissions of Enel's gas retail



Scope 3 emissions:

CDP has published a document detailing the relevance of scope 3 per sector.²⁶ Supplier engagement, collaboration, selective procurement, rethinking product design, R&D and policy engagement are examples of levers to tackle scope 3. Joining sectoral or cross-sector business coalitions can reinforce the credibility of the effort in tackling scope 3.

Rexel is a French manufacturer of electrical installation equipment with a strong international presence, operating in 21 countries. Scope 3 is the main source of group emissions, mostly originating from downstream consumption of its lighting product range. To reduce scope 3, Rexel is actively engaging with its suppliers and consumers to develop solutions with environmental constraints that reduce the environmental impacts. Rexel has identified the percentage reduction of scope 3 GHG emissions intensity, related to the consumption of products sold, as a KPI to decarbonise its activity. Rexel issued a EUR600m (USD696m) SLB in 2021 with this KPI, aiming at a short-term reduction target of 23% from a 2016 baseline as of end of 2023, and a mid-term reduction target of 45% from the same baseline as of end of 2030.



How to ensure a credible transition strategy

1. The entity should ensure the strategy covers all material sources of emissions and factors in the broader environmental impact, considering potential future scenarios which may impact current determinations concerning materiality. When doing so:

- a.** The impact each action is expected to deliver should be disclosed and linked to the trajectory of changing GHG emission SPTs.
- b.** The entity should disclose a materiality matrix informing which environmental metrics are material.²⁷
- c.** The strategy should incorporate an analysis of climate-related risks and opportunities, taking into account potential future scenarios to assess current determinations of materiality, but also adequacy of decarbonisation levers chosen, as per the disclosures recommended by the TCFD.^{28,29}

Several institutions can help to identify the levers of decarbonisation:

• International Energy Agency

Sectoral trade and industry organisations: for instance

- **Responsible Steel**,⁶¹
- **Global Cement and Concrete Association**,⁶²
- **ICMM**,⁶³
- **Cool Farm Tool**⁶⁴

On the circular economy:

- **Ellen MacArthur Foundation**⁶⁵

Cross sector coalitions of businesses:

for instance

- **Energy Transitions Commission**,⁶⁶
- **Mission Possible Partnership**,⁶⁷
- **World Business Council For Sustainable Development**⁶⁸

Global networks programs:

for instance

- **Sustainable Development Solutions Network**,⁶⁹
- **Just Rural Transition**,⁷⁰
- **Food and Land Use Coalition**⁷¹

2. Entities operating in sectors with immature alternative 1.5°C-aligned technologies need to inform stakeholders of the technologies they are exploring, and how these are supported via research and development, policy advocacy, or collaboration. Entities should not rely on carbon credits or offsets as the primary mechanism to reduce GHG emissions, the use of which should be explained along with details on the internal carbon credits procurement policy and associated governance. The Voluntary Carbon Markets Integrity Initiative provides a guide on the use of carbon credits.³⁰

3. The credibility and measurement of targets that reduce scope 3 emissions while ensuring a just transition can be enhanced by a robust sustainable procurement policy with appropriate due diligence processes, and the existence and content of a supplier code of conduct; guidance on which has been provided by United Nations Global Compact and BSR.³¹ Such policies allow issuers to indicate percentage targets for supplier engagement, of suppliers with good quality disclosure, GHG reduction targets, etc.

4. Selecting levers may involve making a choice between decommissioning assets and investing in new low-carbon technology or retrofitting/redesigning high-emitting assets. If the existing asset is incompatible with a net-zero economy (e.g., a coal-fired furnace), delaying the switch to new technology risks **carbon lock-in** and potential **asset stranding**. To limit the risk associated with retrofitting, the entity should:

- a.** Detail the reasons why this choice was made,
- b.** Ensure the retrofitting enables for the future use of net-zero emission technologies such as low-carbon hydrogen to replace natural gas,
- c.** Commit to fund R&D on low-carbon alternatives if one is not immediately available,

d. Commit to a target date to switch to the alternative solution,

e. Regularly review the situation to assess if the alternative technology could be implemented earlier.

5. The implementation plans should be accompanied by an associated finance plan linked to the bond proceeds, which should be quantitative initially, and more qualitative later on. Taking competition and confidentiality considerations into account, it should indicate:

- a.** Cost estimates detailing capital expenditures (capex) and operating expenditures (opex) associated with the delivery of the transition action plans; including R&D, phase out plans, and social expenditure to ensure a just transition.
- b.** Disclosure on the percentage of assets, revenues, expenditures, and divestments aligned to the various decarbonisation levers.
- c.** A quantitative assessment of the potential locked-in GHG emissions from the issuer's key assets and products.
- d.** The evolution of significantly harmful spending in relative and absolute terms, and explanations around its flattening or reduction. This could include:
 - i.** The use of internal carbon pricing to anticipate future impact and underlying assumptions.
 - ii.** The share of green spending as a percentage of the issuer's total spending and how it is expected to grow over time.

ICMA recommends having the finance plan independently reviewed if possible and if not, to provide a forward-looking analysis of how the capex and opex plans support the climate transition.

How action plans and KPIs are used in transition finance

Metric/project or asset taken from the transition plan	Purpose	Criteria
KPI assessing the progress made per action planned	For use as a KPI in an SLB and for post-issuance impact reporting. Several KPIs can be chosen to capture the transition progress and those selected for the SLB can be a subset of those.	KPIs should be core, relevant, material, measurable or quantifiable on a consistent and disclosed methodological basis. They should also be externally verifiable and if relevant, able to be benchmarked with issuer's peers with at least three years' history available. ICMA further recommends that issuers aim to report on at least a limited number of sector-specific core indicators to facilitate comparison.
Projects or assets leading to the decarbonisation of the issuer's core activities	List of nominated assets or projects for a UoP bond and disclosure for SLBs.	Each project or asset contributes to the decarbonisation effort and its impact can be captured by qualitative or quantitative performance indicators.
Projects or assets contributing to a meaningful diversification into new low-carbon business	List of nominated assets or projects for a UoP bond and disclosure for SLBs.	An impact indicator: for instance, the growth in low-carbon revenues.

Accountability disclosure governance

Internally, the entity's governance structure informs how it provides oversight, incentive, and support to the transition.

How to ensure credible governance

1. The Board should review and approve the transition plan, and have oversight of the execution and monitoring of progress.
2. The entity should align its internal key policies and public policy engagement to accelerate the climate transition in line with the Global Standard on Responsible Corporate Lobbying.
3. Executive compensation, tied to performance against the decarbonisation targets, should link to the KPI(s) used to assess the performance and quantify the percentage of remuneration linked to the KPI(s).
4. Internal monitoring should be in place to identify in a timely manner actual or anticipated underperformance of the KPIs and provide mechanisms to determine corrective actions.
5. The Board should provide for a full review and update of the performance targets and transition plan over the lifetime of the bond.
6. The entity should discuss how the climate transition capex roll-out plan informs capex decision making.

Closing the loop and external verification

As the climate strategy is implemented, monitoring and disclosure of the KPIs needs to take place annually, making any adjustments to the transition plan as required. For example, corrective actions might be needed as a result of the influence of market changes or technological evolution. Experience gained in the planning and implementation of the transition will allow initial decarbonisation targets to be revised and become more ambitious.

The transition plan should be reviewed by an independent organisation and updated regularly. ICMA recommends the review to include:

1. Alignment of both the long-term and short/medium-term targets with the relevant regional, sector, or international climate scenario;
2. The credibility of an issuer's climate transition strategy to reach its targets; and
3. Level/type of independent governance and oversight of an issuer's climate transition strategy.

Review and feedback on transition plans can also be provided by not-for-profit organisations:

1. Climate Bonds Initiative

(as part of their Certification scheme)⁷²

2. ACT⁷³

Several non-governmental organisations are assessing the level of commitment of companies on the whole transition plan or on specific sections and illustrate the level of transparency transition plans should have:

3. Influence Map produces LobbyMap, the world's leading system for tracking corporate climate policy engagement and industry associations.⁷⁴

4. Carbon Tracker Initiative assesses capex alignment, audit and accounting practices.⁷⁵

5. Transition Pathway Initiative and **Climate action 100+** assess transition plans.^{76,77}

6. Climate Arc is developing an open-source tool gathering several NGO transition plan reviews.⁷⁸

Step 2: Selecting a thematic label

With a transition plan ready, the next step is to contact the underwriter to determine the most appropriate thematic debt instrument and discuss the possibility of using a bond standard.



UoP bonds and SLBs have different characteristics and the choice of which to use depends on the specifics of the transition plan, sector, entity and/or geographic jurisdiction.

Use of proceeds or sustainability-linked bond

The transition plan should highlight a list of opex and capex needed to finance the transition, but also KPIs and associated SPTs that could be applied to raise SLB finance.

- UoP bonds are a well-established asset class trusted by investors with the advantage of a standardised format and framework. However, they can only be used when the issuer has identified a critical mass of green projects, activities, assets, or expenditures that will make a meaningful contribution to decarbonisation, and which will remain eligible for the duration of the bond. The two most common labels are:

Green bonds for which various standards exist as they have been used historically to finance low-carbon assets, but whose use remains limited in hard-to-abate sectors.⁷⁹

Sustainability bonds, which can support a just transition with UoP earmarked for projects with a combination of social and environmental objectives.⁸⁰

- Entity level **SLBs** can be issued if the entity does not have sufficient assets, activities, or expenditures for inclusion in a UoP bond. The funds are not earmarked for any specific purpose, which makes these instruments very flexible, but the cost of capital is tied to the achievement of specified SPTs linked to stated KPIs. Therefore, they drive the transition by their forward-looking nature and use of targets and are perceived as the instrument of choice by the hard-to-abate sector. Step 3 presents the financial characteristics of these instruments. The climate credentials of issuers have been challenged in the past where SPTs were not judged material enough or there was no visibility as to the use of the funds. The recently released Climate Bonds Standard Version 4.0 has been updated to include corporate entity and SLB Certification to make the link between SLB issuance and ambitious transition plans transparent.
- **Sustainability-linked** green bonds are a hybrid, combining the UoP model of a green bond with the performance-based structure of the SLB to ensure both a forward-looking nature and strong credibility through the green label. Although

rarely used in the market, this structure could attract attention in the future as it captures the best of both UoP and performance-linked bonds.

Climate Bonds Standard and Certification Scheme ensures that an entity Certified under the transition or aligned label can raise any type of labelled or non-labelled bond, with the Certification acting as the recognised badge of best practice in green finance.

Structuring

Green bonds and SLBs are the main labels used to finance the climate transition and the issuer can refer to ICMA principles for additional guidance on social projects and indicators that could be integrated.⁸¹

Green label

In the context of climate transition finance, the green label typically applies to:

- Activities that are considered aligned with a net-zero economy because they are at or near zero emissions. Wind power generation is an example.
- Activities that are known to assist a sector following the 1.5°C or Paris-aligned decarbonisation pathway, which are typically called transitional activities.⁸² To be fully credible, these activities must not hamper the development or deployment of low-carbon activity, nor lead to a lock-in of GHG emissions that is inconsistent with Paris alignment.

Examples of transitional activities across various taxonomies

1. South African green taxonomy for water transport, whose criteria illustrate examples of near zero and of transitional activity:

- Zero direct emissions waterborne vessels;
- Until 31 December 2025, hybrid vessels using at least 50% of zero direct (tailpipe) CO₂ emission fuel mass or plug-in power for their normal operation.

2. South African green taxonomy for the manufacture of cement, a sector with transitional activities:

Mitigation measures should be incorporated into a single investment plan within a determined time frame (five or 10 years) that outlines how each of the measures in combination with others will enable the activity to meet the threshold defined below. The activity manufactures one of the following:

- a. Grey cement clinker where the specific GHG emissions are lower than 0.722 tCO₂e per tonne of grey cement clinker;*
- b. Cement or alternative hydraulic binder, from grey clinker, where the specific GHG emissions from the clinker and cement or alternative binder production are lower than 0.46931 tCO₂e per tonne of cement or alternative binder manufactured.*

Climate Bonds cement mitigation criteria:

Installation, upgrade, retrofit and operation of measures which achieve emissions savings equivalent to the emissions decrease for facilities between the start year of the bond and the end year (the measure or bundle of measures must achieve a reduction in emissions of 13% at plant level to be eligible).



Taxonomies and sector criteria

A taxonomy is a rulebook or a classification system for identifying low-carbon economic activities. As of 2023, more than 40 countries and regions had a taxonomy or were in the process of developing one. Recently published taxonomies for Thailand, Mexico and ASEAN demonstrate that there are different, but converging, routes to this goal. Taxonomies typically cover low-carbon and transitional activities listed above, but also enabling activities that support the implementation of other activities (e.g., data centre).

Sector criteria are the basis of a labelling scheme for credible green products that deliver real impacts. Each sector criteria sets climate change benchmarks for that sector, which are used to screen assets and capital projects so that only those that have climate

In this example, the CO₂ emission threshold reflects the average value of the 10% most efficient installations in 2016 and 2017 as set out in the Annex to the Commission Implementing Regulation (EU) 2021/447 of 12 March 2021.

3. EU taxonomy eligibility criteria for the manufacture of carbon black:

GHG emissions from the carbon black production processes are lower than 1,141 tCO₂e per tonne of product.

4. Climate Bonds example of steel production capex:

Optimisation of blast furnace that became operational prior to 2007, via for instance, pulverised coke injection, top gas recycling or stove waste gas heat recovery. Eligibility is on condition that the investment shall not be for relining and decarbonisation measure(s) and has been/will be implemented at the facility and has/will reduce the facility's emissions intensity (tCO₂/t steel) between 2022 and 2030 by 50%.

As can be seen in the Climate Bonds example above, performance indicators have been added to ensure that the decarbonisation measures are bringing an emissions reduction aligned with a 1.5°C pathway.

integrity, either through their contribution to climate mitigation, or to adaptation and resilience to climate change, will be recognised as green.

Transitional activities require ongoing disclosure of thresholds or performance indicators. These ensure the decarbonisation rate of the activity is in line with the decarbonisation goals of the Paris Agreement. Sector Criteria such as those provided by Climate Bonds provide examples of activities and decarbonisation thresholds that are compatible with a 1.5°C decarbonisation pathway for hard-to-abate sectors.

An issuer choosing a taxonomy or a sector criteria is encouraged to understand the drivers of the taxonomy/criteria development process to ensure the criteria of eligibility are in line with the Paris Agreement. To help issuers and investors further, Climate Bonds regularly supports and publishes research on country taxonomy development and interoperability.⁸³

In addition to taxonomies, issuers can refer to other internationally recognised standards such as ISO and FSC standards to justify that the UoP is eligible for green bond financing.⁸⁴ The Ellen MacArthur Foundation recommends lifecycle analysis, if properly applied.⁸⁵ Additionally, the EBRD, International Energy Agency (IEA), and Mission Impossible Partnership have developed or are developing technology roadmaps that are sector and/or country specific.⁸⁶

Transition bonds can be seen as a subset of green bonds and the label is gaining traction following the implementation of national sustainable finance frameworks and technology roadmaps, such as from the Japan Ministry of Economy, Trade, and Industry (METI)).⁸⁸



They are used to finance the climate transition by issuers from economic sectors with the largest GHG emissions under the green umbrella. However, the transition label has been criticised for fragmenting the sustainable debt market and making a false distinction between green and transition. Moreover, it exposes issuers to accusations of greenwashing when used to label bonds with a level of climate ambition that would not be acceptable under a green label.

At its heart a transition bond should have sufficiently ambitious performance targets that align with a pathway to limit the global temperature increase to 1.5°C and, at the very least, to well below 2°C. If this criterion is met, issuers may choose to label the bond green or green transition, under guidance from the underwriter related to market appetite for the label.

Limak İskenderun Uluslararası Liman İşletmeciliği A.Ş.

(‘LimakPort’) operates the Port of Iskenderun, a container and general cargo port located in Turkey. The following example is an extract from the SPO (Sustainalytics) review of the LimakPort SLB Framework. It illustrates how a KPI that is not part of GHG emissions will typically be assessed.



The KPI measures the percentage of diesel-powered port vehicles that have been converted to electric-powered vehicles. The vehicles targeted for conversion into electric-powered include all vehicles that can be converted to electric and include:

1. 100% of terminal trucks (36 out of 36).
2. 85% of forklifts (32 out of 37).
3. 100% of passenger vehicles used by port personnel when performing port duties (32 out of 32).

The KPI is a directly observable number and calculated by dividing the quantity of total vehicles that have been converted to electric power by the total quantity of vehicles available.

SPT: baseline is 0% as of 2020.

1. By 2028 45% of the terminal trucks, 45% of the total forklifts, 45% of the vehicles used by the port personnel have been converted to electric.
2. By 2030, 100% of the terminal trucks, 85% of the total forklifts, 100% of the vehicles used by the port personnel have been converted to electric.

As these initiatives are a recent market development, ICMA green bond principles do not stipulate which methods to use. ICMA refers to the initiatives quoted above and sustainability consultants for guidance on selecting eligible projects. Taxonomies are preferred by investors.

Sustainability-linked bonds:

As already mentioned, SLBs feature and measure the transition of the corporate entity through the selection of KPIs and SPTs that include GHG emissions, and/or the means to measure decarbonisation pathways.

When the KPI(s) monitor the GHG emissions:

1. KPIs related to GHG emission reduction should be material when compared to the issuers total GHG emission profile. For some sectors like cement and concrete production, scope 1 is the most material (close to 80%) and SLB issuers will typically use scope 1 emissions

In its assessment of the relevance of the KPI, Sustainalytics mentions:

‘Sustainalytics considers LimakPort’s definition and methodology to calculate KPI performance to be clear and consistent based on the simplicity of the calculation and ease of interpretation of the KPI. The KPI measures the conversion rate of diesel-powered vehicles to electric powered vehicles, and thus Sustainalytics considers the KPI as an indirect measure of the performance of the Company on its emissions reduction targets. Sustainalytics notes that the KPI does not follow an externally recognised methodology as it was formulated in the context of company-specific operations, and the KPI does not lend itself well to being benchmarked. Overall, Sustainalytics considers the percentage conversion rate of port vehicles from diesel-powered to electric powered to be an adequate KPI given that the select vehicles account for 50% of Scope 1 and 44% of Scope 1 and 2 emissions, and the KPI speaks to a material environmental issue in the marine ports subindustry.’

In the assessment of the level of ambition, Sustainalytics mentions:

‘Sustainalytics has relied on the historical performance as the SPT does not support peer analysis or benchmarking with science-based targets. LimakPort has clarified that the Company does not have any electric powered vehicles in its fleet, and the SPT includes all vehicles that are eligible for conversion as of 2020(. . .). Given that LimakPort currently has no electric vehicles, and the Company intends to achieve substantial emission reduction through the achievement of the SPT, Sustainalytics consider the SPT to be ambitious and above business-as-usual trajectory.’⁸⁹

only. For other sectors, scope 1 and 2 combined are less relevant and cover a small fraction of the total GHG emission profile. In those instances, scope 1 and 2 alone do not constitute a material KPI and scope 3 emissions should be addressed. Given the complexity of establishing baselines and targets for scope 3, transition plans may include a commitment for its measurement and reduction, instead of a target. A KPI could capture the commitment to tackle scope 3 or cover part of scope 3 emissions with an undertaking to include remaining material scope 3 sources in the future.

2. SPTs should refer to science-based scenarios as described on page 11.
3. The entity’s activities should provide the levers to achieve the SPTs, financed directly or indirectly by the bond, rather than through other means, e.g., market movements, divestments, or offsets.

For KPIs capturing the means to decarbonise:

4. The SPTs should represent a material improvement in the respective KPIs, be beyond a business-as-usual trajectory, and be linked to the decarbonisation or low-carbon pathway. The baseline for comparison for instance could be the performance of the entity over the last three years and its industry peers over the same period.

5. They should be determined on a predefined timeline, set before or concurrently with the issuance of the bond.

Examples of KPIs relevant to specific sectors can be found in taxonomies and/or country and sectoral technology roadmaps. ICMA also publishes an illustrative KPIs registry.

Additional considerations for all thematic labels

Irrespective of the thematic label chosen for the bond, investors will require pre-issuance information on how the funds will be allocated and an assessment of the level of **additionality**. The assessment informs the extent to which the instrument will contribute to the transition and does not pay for emission reductions that would have occurred anyway. The level of additionality can be communicated by disclosing the percentage of new projects expected to be financed.

Public scrutiny of greenwashing and carbon lock-in risk has increased with the proliferation of green and sustainability labels accompanied by unsubstantiated climate pledges and commitments in certain cases. The OECD identifies UoP labelled bonds and SLBs as susceptible to accusations of greenwashing.⁸⁷ While a robust transition plan can limit the risk, the following conditions should be screened against:

1. The bond is used to refinance investments that were not linked to the transition.
2. The transition plan is incomplete and/or non-transparent.
3. An SLB or UoP bond is used to finance carbon lock-in activities and no safeguards were added, as explained on page 12.
4. SLBs use a composite ESG rating as a KPI and link the deal to an ESG score. This has been flagged as non-transparent practice and ESG scores are currently highly dependent on the assumptions used by ESG ratings and data providers.
5. The UoP are earmarked for the development of technologies whose efficiency in decarbonising remains unproven and the entity is not actively engaged or collaborating to develop these technologies.
6. SPTs are not perceived as ambitious enough or the KPIs are not material.

7. There is a lack of transparency pre-issuance on the percentage of the UoP allocated to refinancing and the projects to be refinanced, with the risks that this includes stranded or lock-in activities. The issuer should define the look-back period for refinanced eligible transition projects and their nature.

Step 3: The sustainable financing framework

What is a sustainable financing framework?

The sustainable financing framework (framework) is the main document supporting the issuance of transition-linked bonds. The document will inform on:

- The history of GHG emissions and assurance reports on the GHG emission disclosures.
- A description of the entity's sustainability journey which will lead to the rationale for establishing a bond framework.
- The alignment of the bond with a standard or the core components of the relevant ICMA principles and Climate Transition Finance Handbook.
- Information on external review provider(s) that will assess through a pre-issuance external review, the alignment of the bond framework with the standard chosen or ICMA principles.

The framework can be referenced in successive deals, but the information should be kept up-to-date and keep track of past information to testify to the issuer's progress in transitioning.

The framework should not be confused with the bond prospectus, which is the legal document providing information on the bond offering unique to each deal, and would not include details on alignment with a standard or ICMA principles.

The typical content of a framework is summarised below for bonds following ICMA green bond principles or SLB principles. In the case of multiple labels, the framework should separate the information provided for each label by introducing subsections with appropriate headings. Issuers choosing to follow Climate Bonds or another green bond standard or ICMA guidelines should also refer to that organisation's documentation.



Green bond framework

1. Introduction to the entity
2. Sustainability-related disclosure and reporting
3. Description of transition plan
4. Rationale for establishing a green bond framework
5. Alignment of green bond with the ICMA green bond principles
 - a. UoP
 - b. Process for project evaluation and selection
 - c. Management of proceeds
 - d. Reporting
6. Information on possible engagement with providers of external review of alignment of the bond framework with ICMA principles or other bond standards
7. Commitment of the issuer to obtain an external verification on allocation and impact reporting.

Sustainability-linked bond framework

1. Introduction to the entity
2. Sustainability-related disclosure and reporting
3. Description of transition plan
4. Rationale for establishing a sustainability-linked bond framework
5. Sustainability-linked bond
 - a. Selection of KPIs
 - b. Calibration of SPTs
 - c. Bond characteristics
 - d. Reporting
 - e. Verification
6. Information on possible engagement with providers of external review of alignment of the bond framework with ICMA principles or other bond standards

Grupo Bimbo, S.A.B. de C.V. (Bimbo) is a



Mexican multinational food entity with a worldwide presence in the bakery sector. Bimbo has detailed in its sustainability report the levers used to decarbonise. Its April 2023 updated Sustainability Financing Framework covers both green bonds and SLBs. The framework includes various eligible project categories for its green bond that will allow it to decarbonise its three scopes of emissions. The table presents an extract.

Eligible Category	Eligibility Criteria	Contribution to UN SDGs
Renewable Energy	<p>Expenditures related to the construction, development, acquisition, maintenance, and operation and connection of assets and infrastructures for renewable energy derived from solar, wind, certified hydro, and/or green hydrogen (produced using renewable sources with a carbon intensity lower than 100gCO₂e/kWh) as renewable, including:</p> <ul style="list-style-type: none"> On-site renewable energy projects including solar rooftop panels and wind, Sourcing expenditures pursuant to long-term power purchase agreements (PPAs) or Virtual Power Purchase Agreements with renewable projects, Renewable energy Li-ion battery storage systems. 	

Use of Proceeds bonds

Each UoP bond issued should be consistent with the specifications of the issuer’s framework in the following ways:

Use of Proceeds

The eligible project categories should be those identified in the transition plan as having a material contribution to the climate transition.

If existing assets, projects, activities, or expenditures are eligible for inclusion, the framework should specify the lookback period.

It is important to have a buffer of eligible assets exceeding the face amount of the outstanding bond to safeguard against assets becoming ineligible or their impact on the transition immaterial. This is also a consideration for repeat issuance. Issuers that have received preferential pricing and other benefits for bonds bearing the green label, are inclined to prioritise the development of green expenditures.

Project evaluation and selection process

The governance process dictates how the issuer evaluates and selects the individual items within the list of nominated projects and assets.

The decision-making process must include:

1. How the climate-related objectives of the debt instrument are positioned within the context of the issuer’s transition. This would typically reference the action plans of the transition plan.
2. A process to determine whether the nominated projects and assets meet the eligibility requirements of the label or standard chosen, i.e., the alignment of projects with official or market-based taxonomies.
3. A process in place to identify mitigants to known material risks of negative social and/or environmental impacts from the relevant project(s). Such mitigants may include clear and relevant trade-off analysis undertaken in addition to

Bimbo’s project evaluation and selection process introduced in the previous section:

Projects that will potentially receive allocation amounts related to the Green Finance Framework are evaluated and selected by the Bimbo Group Sustainable Investments Committee (Committee), formed by representatives of the sustainability, treasury, net zero, financial planning, agrobusiness, vehicles, and procurement teams and/or other advisers. The Committee will screen and assess that the projects meet the eligibility criteria of the Green Finance Framework as well as Bimbo’s sustainability policies and procedures for inclusion in the portfolio of eligible green projects.

Once screened, the sustainability, net zero, financial planning, and treasury departments track actual expenditures on eligible projects using internal systems and ensure that no double-counting of expenditures for the UoP occurs across green finance instruments.

The Committee will meet at least once a year to review and monitor the list of eligible green projects against the eligibility criteria. It is also responsible for the exclusion and replacement of projects which no longer comply with the eligibility criteria, on a best-efforts basis.

monitoring where the issuer assesses the potential risks to be meaningful. ICMA stipulates that while there is no requirement for green activities to demonstrate a positive social impact, they should not cause any social harm.

4. Finally, ICMA encourages issuers to identify alignment with market-wide green, social or development objectives, such as the SDGs, to help investors that may use them as part of their investment decisions.

Cadent’s project evaluation and selection process



Cadent is the largest gas distributor in the UK. In March 2023, it updated its Green Bond Financing Framework, which included its net-zero commitment, science-based targets, and ambition to reduce its scope 3 emissions. The framework included a single eligible project category that covers the transmission and distribution networks for renewable and low-carbon gases.

Cadent describes its process to identify acceptable projects as follows:

‘Our climate change risks are managed in line with our overall risk management framework. This includes a thorough, consistent, and documented approach to identifying, assessing, treating, monitoring and reporting risks.’⁹⁰

Cadent mentions that it has a standard for protection and restoration of biodiversity and ecosystems that sets ‘the biodiversity expectations for all permanent and temporary worksites, including for managing and protecting habitats, flora and fauna’ and it engages external consultants to conduct ecology surveys to identify risks and suggest improvements.

Management of proceeds

- Issuers should describe the internal governance to manage the UoP, including the supervision, tracking, and reporting of the proceeds.
- Proceeds should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked in an appropriate manner (e.g., tagged in the internal accounting systems). Temporary placement for the balance of unallocated net proceeds should be documented.

Best practice would ensure that:

1. During the lifetime of the bond, the balance of unallocated net proceeds is not invested in any project inconsistent with the delivery of a low-carbon economy.

a. Funds are earmarked to nominated projects and assets. Funds could also be ring-fenced.

b. If any of the proceeds are to be used for refinancing, the framework should provide an estimate of the proportion, identify which nominated projects and assets may be refinanced and to the extent relevant, the expected look-back period for refinanced eligible projects. The issuer can also state an intended timeframe for the deployment of the proceeds.

c. The framework should describe the procedure for reallocating proceeds earmarked for projects that cease to qualify. To ensure transparency, an external auditor, or other third party, should verify the internal tracking method and the allocation of funds.

Reporting

The issuer should commit to annual reporting with current information on the UoP until full allocation, on a timely basis in case of material developments. Refer also to Step 5 on post-issuance reporting.

Sustainability-linked bonds

The following information should be disclosed in the framework.

Selection of key performance indicators

KPIs should follow the criteria detailed in the transition plan and the considerations given on pages 16 and 17.

Calibration of sustainability performance targets

Calibration of the SPTs should follow the recommendations of the transition plan and given on pages 16 and 17. As far as is practicable the framework should disclose plans for their fulfilment.

Grupo Bimbo's management of proceeds

The Sustainable Financing Framework of Grupo Bimbo (referenced above) states:

'We intend for the proceeds of any Green Financing Instrument to be allocated to Eligible Green Projects within 3 to 5 years of incurrence of the debt, subject to the specific projects in consideration. In the case of refinancing existing Eligible Green Projects, expenditures which have been made within the 36 months preceding the date of issuance of a Green Finance Instrument shall be considered for inclusion as Eligible Projects.'

Pending full allocation of such amounts to the portfolio of Eligible Green Projects, we may hold and/or invest the balance of net proceeds not yet allocated, at our discretion, in our Treasury liquidity portfolio (in cash or cash equivalents, money market funds, etc.) in line with our Treasury management policies or used to repay a portion of outstanding indebtedness, which will exclude carbon-intensive activities.'



JSW Steel Limited KPI selection

JSW Steel Limited is India's leading integrated steel manufacturer. Its 2021 SLB Framework included one KPI which was:



Relevant to the transition, core, and material to the entity's overall business:

'CO₂ emissions intensity for scope 1 and 2 emissions, expressed as tonnes of CO₂ per tonne of crude steel produced'. The KPI covered 100% of its crude steel production and accounted for around 99% of the company's total emissions.

Quantifiable on a consistent

methodological basis: The methodology used to measure GHG emissions followed the World Steel Association CO₂ data collection user guide.

Externally verifiable: 'The assurance of GHG Emissions is conducted in accordance with Limited Assurance procedures as per International Federation of Accountants (IFAC) International Standards on Assurance Engagements (ISAE) 3410, Assurance Engagements on GHG Statements.'

Able to be benchmarked 'The standards used for reporting GHG emissions for the integrated steel operations cover various GRI Standards- 305-1, 305-2, and 305-4.'

JSW Steel Limited's 2021 SPT calibration

SPT 1: CO₂ emissions intensity reduction to equal or be less than 1.95 tonnes CO₂ per tonne of crude steel produced (tCO₂/tcs), equivalent to a reduction of 23% from a 2020 baseline, by 2030.⁹¹

To justify the calibration, JSW Steel Limited:

- Disclosed the value of the SPTs for the three years preceding the baseline of 2020, and highlighted that 2020 was not a year with high emissions.
- Discussed how ambitious the target was: 'In 2017, as part of its Intended Nationally Determined Contributions (INDC), India's Ministry of Steel included in its National Steel Policy specific reduction targets of GHG emissions in the iron and steel sector to a level of 2.2–2.4 tonnes per tonne of crude steel in the BF-BOF route and 2.6–2.7 tonnes per tonne of crude steel in the DRI-EAF route by 2030. Recognising our role as one of the leading steel producers in India, we have set ourselves the target of reducing our CO₂ emissions intensity by 2030 to 1.95 tCO₂/tcs, significantly exceeding the Ministry of Steel's targets under the Paris Agreement. (...) Our 1.95 tCO₂/tcs target is derived from the International Energy Agency's (IEA) Iron and Steel Technology Roadmap, published in 2020.'
- Explained how the SPTs would be met.
- Benchmarked the target using an IEA pathway.

Vestas SPT calibration

Vestas Wind Systems A/S is a Danish designer, manufacturer, installer, and services provider of wind turbines. Its 2022 SLB Framework included KPIs that captured the total tonnage of non-recycled waste from Vestas' own operations per MW of wind turbines produced



and shipped in the year. Vestas targeted a 90% reduction in the ratio by 2030 and the creation of the first wind turbine from fully recycled material. To illustrate the ambition of this target, [Vestas' SLB Framework](#) (page 15) included a projection for its share of blade waste to 2030 which estimated this could potentially avoid 100,000 tonnes of waste.

The SPTs should remain ambitious as the entity progresses in its decarbonisation effort and be aligned with the decarbonisation pathway. Accordingly to ICMA guidelines, disclosure on target setting should make clear reference to:

- The timelines for the target achievement, including the target observation dates/periods, the trigger event(s) and the frequency of the SPTs. These targets must be set before or concurrently with the issuance of the bond.
- Where relevant, the verified baseline or reference point selected for improvement of KPIs as well as the rationale for that baseline or reference point to be used (including date/period).
- Where relevant, in what situations recalculations or pro-forma adjustments of baselines will take place.
- Any other key factors beyond the issuer's direct control that may affect the achievement of the SPTs.

Bond characteristics

The framework must describe how the bond's financial and/or structural characteristics will change if the selected KPIs reach (or miss) the predefined SPTs. The underwriter will offer guidance on the appropriate financial mechanism. While the most common financial feature is a coupon step-up that punishes underperformance against the identified targets, the current universe of SLBs is small and fragmented making it difficult to establish best practice.

Vestas Wind Systems

A/S in its 2022 SLB

Framework specified a coupon increase in the event that:

- A KPI failed to achieve the SPT on the reference year, or
- The reporting did not meet the requirements as set out in the terms and conditions of the relevant bond documentation, or
- The verification of the KPI performance was not provided and made public on or prior to the reference year.



Mind the gap

The most common financial feature is the coupon step-up (58% of SLBs issued between 2018 and Q1 2023, according to Climate Bonds Database) whereby the entity commits to pay a higher coupon if the SPT is not reached. The average coupon size increased from 25 bps in 2019 to 36 bps in Q1 2023. Alternatives include a coupon step-down, which is very rare. In only 1.2% of cases do coupons step up or down (6.5%) or there is a redemption premium linked to sustainability projects (18% of the SLBs).⁹²

The materiality of the penalty is the subject of ongoing debate. The materiality of the cost-of-capital might convey the message of how serious the issuer is about sustainability and a material penalty might be beneficial to the issuer at the time of the issuance. At the same time, an SLB should not impact the issuer's credit risk. SLBs are a nascent market segment (first bond issued in 2018) and the standard on SLB structuring is likely to evolve. At the beginning of 2023, the financial structure of SLBs was a collaboration between entities and underwriters.

ICMA recommends that the variation of the bond's financial and/or structural characteristics be commensurate and meaningful relative to the issuer's original bond financial characteristics.⁹³

In addition, any fall-back mechanisms, if the SPTs cannot be calculated or observed in a satisfactory manner, should be explained. Issuers may also consider including, where needed, language in the bond documentation to take into consideration the potential occurrence of exceptional events that could substantially impact the calculation of the KPI, the restatement of the SPT, and/or proforma adjustments of baselines or KPI scope. Finally, issuers should disclose key assumptions underlying the attainment of the SPTs and whether these would impact the requirement to reach the targets.

Vestas

The sustainability-linked bond framework of Vestas (referenced above) states:

"The levels of CO₂e emissions (...) and material efficiency (...) during the base years for the KPIs will be recalculated to reflect any significant changes in Vestas' structure (e.g., acquisition, divestiture, mergers), or technical changes (i.e., an updated IT system, changes required for obtaining a higher level of assurance)".



Finally, a credible SLB would also link the financial structure of the bond with the transition, in particular, observation dates of any trigger events should span the duration of the bond with enough intermediate observation dates chosen to show the impact of the investment. Any call dates should be set after observation dates to not minimise the financial incentive of reaching the target.

Climate Bonds SLB Database Methodology

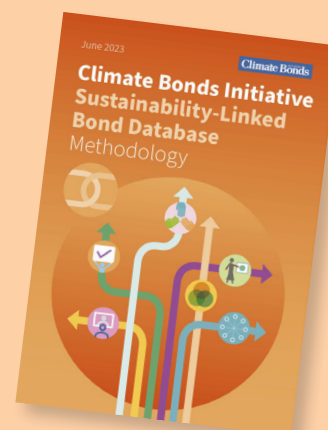
Climate Bonds had recorded cumulative volume of USD252bn in sustainability-linked bonds (SLBs) at the end of H1 2023. This underscores the rapid growth in this label since the first deal was priced in 2017.

Historically, Climate Bonds has recorded, but not screened, SLB deals but in June 2023, it published its SLB Database Methodology which will enable screening going forwards.⁹⁵

The methodology organises SLBs into four categories:

- 1. Fully aligned:** SLB targets cover all material sources of emissions and are aligned with the relevant pathway.
- 2. Strongly aligned:** SLB targets cover all material sources of emissions and will be aligned with the relevant pathway by 2030.
- 3. Aligning:** SLB targets cover all material sources of emissions, are aligned with the pathway on a % reduction basis, and the issuer has the basic tenets of a transition plan.
- 4. Not aligned:** SLB targets fail to meet any of the above criteria, or do not meet the other requirements detailed in the SLB Database Methodology.

This methodology clearly defines expectations for SLBs in terms of the materiality of KPIs and alignment with sector-specific pathways, and this is intended to contribute to more discipline in the design of such instruments, as well as enabling investor discernment.



Reporting

This section of the framework describes the issuer's process for reporting on the performance of the KPIs against the SPTs and the level of ambition of the SPTs that could change as the transition plan is adapted. ICMA recommends a contractual annual reporting with the activation of a trigger event (e.g., coupon variation) in the case that there is a lack of reporting on the observation dates of the SPTs.⁹⁴

Verification

The corporate entity must commit to put in place an independent and external verification (limited or reasonable assurance) report relative to the SPTs, outlining the performance against the SPTs once a year, and in the case of any date/period relevant for assessing the SPT performance leading to a potential adjustment of the SLB financial and/or structural characteristics, until after the last SPT trigger event of the bond has been reached.

Link with sustainability-linked loans

Entities with experience in raising sustainability-linked loans (SLL) may find significant similarities between the SLB principles and the sustainability-linked loan principles. The sustainability-linked bond framework can be used to finance SLLs.

However, owing to the more public nature and typically broader distribution of SLBs, a higher level of transparency on the underlying sustainable project is needed for SLBs pre- and post-issuance. SLBs expose the issuer's climate strategy to the broader market, with the potential for a higher impact on the issuer's reputation.

Step 4: Bond issuance

Once the bond framework is in place, the lead underwriter has a critical role in guiding the issuer through the final stages of the bond issuance process.

Refinitiv publishes a league table of underwriters in its sustainable finance review, which is dominated by the largest French, American, Japanese, and German investment banks, achieving typically between 2% to 6% of market share.⁹⁶

For large deals, the lead underwriter will lead an underwriter syndicate; a group of investment banks which come together for the purpose of selling the bond to investors and spreading the risk. The syndicate is compensated by the underwriting spread, which is the difference between the price paid to the issuer and the price received from investors when the issue goes public.

The bond issuer will decide if the bond is domestic, a Eurobond or a foreign bond.⁹⁷ One major distinguishing characteristic of foreign bonds is the potential currency risk the issuer can be exposed to.

Before moving to marketing and distribution the following should be completed:

- 1.** The SPO. ICMA has published a pre issuance checklist and recommends completing an SLB information template.^{98,99}
- 2.** Legal documentation, including the bond prospectus which includes the bond's financial features (maturity, seniority, currency) and reference the bond framework to satisfy the label and standard chosen. SLBs can use one or several KPIs listed in the sustainability-linked bond framework.



The underwriter will take the lead in the marketing process to achieve a widespread investor interest and the most cost-effective pricing. They will arrange a series of meetings, the roadshow, with key investors with the following objectives:

- 1.** The underwriter will reach new ESG investors to diversify the issuer's investor base. The underwriter will actively build an open dialogue with investors on sustainability issues to help build trust and lower perceived risk.
- 2.** The issuer and underwriter will prepare a short presentation covering:
 - a.** The climate transition plan of the entity and how the bond fits with the issuer's strategy,
 - b.** The bond description,
 - c.** An overall credit review of the entity.
- 3.** The underwriter should use its market knowledge to propose an execution window where the market is generally active (outside any holiday period), avoiding uncertain economic announcements and free, if possible, from competing supply.

Once the issuer and underwriter are satisfied that sufficient interest has been obtained, the bond can be priced and distributed to investors.

Step 5: Post-issuance reporting

High on investor agendas and a requirement of all bond standards, post-issuance reporting illustrates how the proceeds of the deal are being mobilised, or progress



towards meeting the SPTs. The highest credibility is achieved by timely and accurate reporting, preferably annually and for the whole duration of the bond. The entity is advised to update its transition plan annually to incorporate the updated value of its transition KPIs.

Post-issuance reports should be easily accessible for investors and the public on the corporate website.

Post-issuance reports

Post issuance and preferably annually, the issuer should report on the progress made to keep investors informed of the impact of their investments on decarbonisation. This is done via updates on the GHG emissions and other transition related KPIs and transition plans, including a comparison of completed actions to planned actions in the prior reporting period, highlighting any underperformance to date and corrective actions to address, by submitting the reports described below.

Allocation report (for UoP bonds)

The report should include:

1. The list of the eligible projects to which bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated.
2. A comparison with the commitment made pre-issuance in terms of fund allocation.
3. An estimate of the share of the net proceeds used for financing and refinancing, detailing which nominated projects and assets have been refinanced. This may also include the expected look-back period for refinancing nominated projects and assets.
4. If relevant, any temporary investment instruments used for the management of unallocated net proceeds.

If confidentiality considerations restrict the detail that can be disclosed, or if there are many small projects being financed, the reporting can be set at the portfolio level. However, disclosure of the impact of some of the projects financed is recommended as indicative of the portfolio. Issuers are encouraged to explain the key characteristics of the approach they select for their report. There may also be double-counting concerns if the same underlying project(s) is reported both by the original transition-linked deal and by subsequent ones.

Finally, the external auditor, or other third party, will verify the allocation of funds.

Eligibility reporting (for UoP bonds)

This is relevant for UoP aligned with a taxonomy, where the report should provide:

- Confirmation that the nominated projects and assets continue to meet the relevant eligibility requirements applicable at the time of obtaining the label.
- Information on the environmental characteristics or performance of nominated projects and assets prescribed by the relevant sector eligibility criteria of the taxonomy used.

Impact reporting (for UoP bonds and SLBs)

The impact report aims to disclose the environmental and potentially the social impact of the projects financed under the bond framework, i.e., whether spending took place as anticipated in the implementation plan, quantitative and qualitative explanations of the contribution of the proceeds to the transition, and the expected and observed reduction in GHG emissions or other metrics capturing the transition.

If the projects did not achieve the expected outcome, the report should explain why.

For SLBs, the selected KPIs are reported, and the report also provides an opportunity to update investors on the level of ambition of the SPTs and on any change of level of materiality of the KPIs.

For UoP deals, qualitative performance indicators are used and, where feasible, quantitative performance measures of the outcomes or impacts of the nominated projects and assets.

Additional considerations and guidance are found in ICMA's harmonised framework for impact reporting of green and social projects.^{100,101}

Vestas

In its 2022 KPI progress report on reducing the amount of waste, Vestas announced a 20% reduction from the 2021 baseline and quoted the actions undertaken. Vestas also attached the external verification report.



Air Liquide

In its 2023 allocation and impact report following issuance of a EUR500m green bond raised in May 2021, Air Liquide stated:



As of the end of 2022, the full EUR500m proceeds of the inaugural green bond are allocated:

- 43% for financing new projects,
- 57% for refinancing.

The allocation reports specified the amount attributed to each eligible project and the impact of the project; for instance, in the energy efficiencies category, two projects were financed for a total of EUR27.2m and the annual reduction of energy consumption amounted to 17,520MWh while the estimated CO₂ emissions were 7008 tCO₂eq/y.

Verification/assurance report for a sustainability-linked bond

This report monitors the performance against the SPTs and should be independently audited by a specialist firm that will provide the market and investors assurance that:

1. The SPTs set to date have been met.
2. The issuer is on track to meet future SPTs. This may include assessment of any compensatory measures where underperformance against the initial transition plan exists or is anticipated.
3. Any recalibration of SPTs or transition plans has not led to the lowering of SPTs.

The outlook for transition finance

This guide can assist any practitioner in the corporate sector to develop a plan to reach a Paris-aligned future. As the number of issued bonds and transition plans increases, practices and recommendations will likely evolve.

Although transition finance is a relatively recent development the market is growing rapidly. By the end of H1 2023, the volume of aligned green, sustainability, and sustainability linked bonds recorded by Climate Bonds had reached USD3.46tn. Further, H1 2023 was the most promising half-year yet for alignment with the recently published Climate Bonds SLB Database Methodology, with aligned SLBs reaching almost one quarter (24.8%) of total issuance count, and a slightly higher percentage by issuance volumes (27.2%).

Climate Bonds has identified five areas of transition finance that can be developed to move the market forwards.

1. Regulatory frameworks and policy support

More corporates are engaging in transition finance as market and regulatory initiatives consolidate. These initiatives include taxonomies, disclosure frameworks, industry roadmaps and sector level decarbonisation pathways and standards for transition finance instruments. All these tools can contribute to robust transition planning. Meanwhile, clear policy support in Japan and China for the hard-to-abate sectors has contributed to the proliferation of credible transition finance in those countries. However, the versatile nature of the SLB structure has helped its popularity in Latin America where such instruments constitute a much larger share of the labelled bond market than globally with 17.2% versus 5.4% respectively.¹⁰²



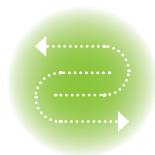
2. All scopes of emissions

The consistent recognition of scope three emissions among SLB KPIs is the next frontier. Issuers should be encouraged to address all scopes of emissions in their transition plans, even if they are not yet equipped to tackle them all. The scope of corporate ambition is notable. For example, Latin America's largest restaurant chain and the world's largest McDonalds franchise, Arcos Dorados Holdings, became the region's first restaurant chain to price an SLB in April 2022. The USD350m deal had a coupon step-up linked to a single KPI, the reduction of scope 1, 2 and 3 GHG emissions. Upstream scope 3 emissions, in the form of the carbon footprint in its supply chain account for more than 93% of Arcos Dorados total GHG emissions, so the SLB framework addresses almost 100% of their total emissions footprint. Sustainalytics reviewed the deal, and the framework was confirmed to align with ICMA's Sustainability-Linked Bond Principles (SLBP).¹⁰³



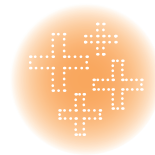
3. Resilience

Resilience is gaining traction as an important theme. The USD1.2m green bond issued by Interchile S.A. in 2021 had UoP earmarked for upgrading, improving, and retrofitting of transmission infrastructure and substations, aiming to enhance the resilience of the system to weather-related events. Although small, this deal demonstrates how transition finance can support resilience efforts in regions vulnerable to climate change.



4. Entities operating in all sectors must participate.

New sectors have entered the stage of the climate transition agenda, including food system value chains which are responsible for about a third of GHG emissions. These are very difficult to decarbonise due to the multiplicity of small actors, regional specificities, and their strong linkage with social and economic development in developing countries. However, Climate Bonds has noted a sharp increase in the number of companies raising SLBs with scope 3 emissions, which signifies that engagement with the supply chain is mature enough to identify and act upon the levers of scope 3 emissions reduction.



5. Just transition and biodiversity

The just transition, while conceptually established, still needs to be fully integrated into transition plans along with new themes that have emerged from the global agenda such as the promotion of a nature positive transition to respond the urgent need to protect and rehabilitate natural ecosystems while at the same time pursuing climate adaptation and resilience.



Appendix 1. Summary of regulations

Regulations on sustainability related disclosures for non-financial corporates as of April 2023				
Jurisdiction	Name	Status	Year enacted/ planned	enforcement
Brazil 	Resolution no. 59	Effective	2023	Mandatory
Canada 	Climate-related Disclosure Rule	Under development	N/A	Mandatory
US 	Climate-Related Disclosures	Under development	2024/2025	Mandatory
China 	Measures for Corporate Disclosures of Environmental Information	Effective	2022	Mandatory
	CERDS Guidance	Effective	2022	Voluntary
India 	Business responsibility and sustainability reporting by listed entities	Effective	2022	Mandatory
	Consultation Paper on ESG Disclosures, Ratings and Investing	Announced	N.A.	Mandatory
Japan 	Japan Corporate Climate Disclosures	Effective	2022	Mandatory
South Korea 	ESG Corporate Disclosure Rules	Effective	2021	Voluntary
EU 	Corporate Sustainability Reporting Directive (CSRD)	Effective	Phased implementation	Mandatory
UK 	Companies (Strategic Report) (Climate-Related Financial Disclosure) Regulations 2022	Effective	2022	Mandatory
South Africa 	JSE Climate Change Disclosure Guidance	Effective	2022	Voluntary
Singapore 	Singapore Listing Rules	Effective	Phased implementation	Mandatory
Australia 	climate and sustainability-related disclosure standards	Announced	Phased implementation	Mandatory

Annex 1. Glossary

Net zero: from UNFCC, Race to Zero Lexicon. When anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period. Organisations are considered to have reached a state of net zero when they reduce their GHG emissions following science-based pathways, with any remaining GHG emissions attributable to that organisation being fully neutralised, either within the value chain or through purchase of valid offset credits.

Decarbonisation pathway: provides the pace and timing of GHG emissions reductions.

Paris Agreement or Paris-aligned: from UNFCC, Race to Zero Lexicon. Goals are considered 'Paris-aligned' or if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C, with no or low overshoot.

1.5°C aligned or 1.5°C trajectory or pathway: in this guide refers to an entity decarbonisation pathway aligned with the latest and most ambitious climate science recommendations as communicated by the Intergovernmental Panel on Climate Change (IPCC) i.e., halving greenhouse gas (GHG) emissions by 2030 and reaching net zero by 2050, thereby limiting global warming to 1.5°C with no or low overshoot. Thresholds and target dates differ per sector.

Science-based decarbonisation pathway: GHG emission reduction targets are considered science based if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement, as communicated by scientifically reliable and reputable institutions such as the Intergovernmental Panel on Climate Change (IPCC).

Internal Carbon pricing: Carbon pricing is a highly adaptable mechanism designed to make organisations price in the cost of their carbon dioxide (CO₂) emissions to their financial decisions and encourage emission reductions. It effectively brings the cost of the environmental damage caused by greenhouse gas emissions back to the emitter.

Carbon lock-in occurs when fossil fuel infrastructure or assets (existing or new) continue to be used, despite the possibility of substituting them with low-emission alternatives, delaying or preventing the transition to near-zero or zero-emission alternatives.

Asset stranding: stranded assets are assets that 'have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities'.¹⁰⁴

Scope 1 emissions: From GHG Protocol, direct GHG emissions occur from sources that are owned or controlled by the entity.

Scope 2 emissions: From GHG Protocol, electricity indirect GHG emissions.

Scope 3 emissions: From GHG Protocol, other indirect GHG emissions. Scope 3 emissions are a consequence of the activities of the entity but occur from sources not owned or controlled by the entity.

Greenwashing: According to the European banking authority, 'a practice whereby sustainability-related statements, declarations, actions, or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a financial product, or financial services. This practice may be misleading to consumers, investors, or other market participants'.¹⁰⁵

Just transition: From the World Benchmarking Alliance: 'Sustainable development can only be achieved by striking the right balance between economic, environmental, and social components. Decarbonisation of our global economy will only succeed if climate justice includes solutions for workers and communities, also known as a just transition'.¹⁰⁶

Additionality: Additionality refers to a positive impact or outcome that would not have otherwise occurred without additional resources or capital investment. See also the discussion in the following reference on the importance of additionality in impact investing.¹⁰⁷

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