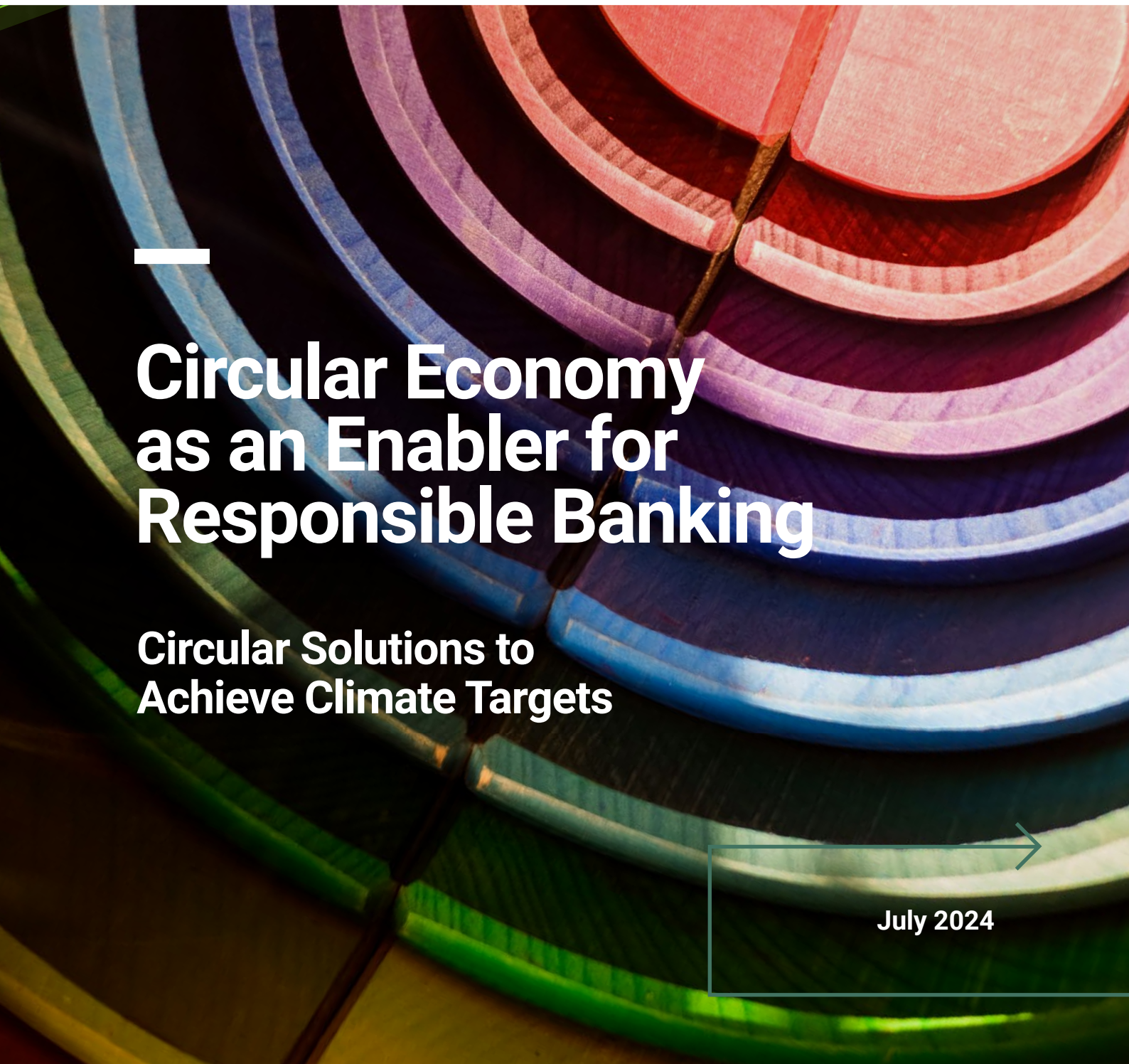
**Principles for Responsible Banking:**
Guidance for banks

UN environment programme | finance initiative

Principles for **Responsible Banking**



# Circular Economy as an Enabler for Responsible Banking

## Circular Solutions to Achieve Climate Targets

July 2024

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Member banks

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# Acronyms and abbreviations

| | |
|---|---|
| **BAT** | Best Available Techniques |
| **CDP** | Carbon Disclosure Project |
| **CSRD** | Corporate Sustainability Reporting Directive |
| **CTI** | Circular Transition Indicators |
| **E&S** | Environmental and social |
| **EFRAG** | European Financial Reporting Advisory Group |
| **EPR** | Extended Producer Responsibility |
| **ESG** | Environmental, social and governance |
| **ESRS** | European Sustainability Reporting Standards |
| **EU** | European Union |
| **GFANZ** | Glasgow Financial Alliance for Net Zero |
| **GHG** | Greenhouse gas |
| **GRI** | Global Reporting Initiative |
| **ICT** | Information communications technology |
| **IDB** | Inter-American Development Bank |
| **ILO** | International Labour Organization |
| **IPBES** | Intergovernmental Panel on Biodiversity and Ecosystem Services |
| **ISSB** | International Sustainability Standards Board |
| **KPI** | Key performance indicator |
| **KYC** | Know Your Customer |
| **LCA** | Life cycle assessment |
| **MDB** | Multilateral development bank |
| **NDCs** | Nationally Determined Contributions |
| **PaaS** | Product as a Service |
| **PD** | Probability of default |
| **PRB** | Principles for Responsible Banking |
| **SBTi** | Science Based Targets initiative |
| **SBTN** | Science Based Targets Network |
| **SMEs** | Small and medium-sized enterprises |
| **SDGs** | Sustainable Development Goals |
| **TCFD** | Task Force on Climate-Related Financial Disclosures |
| **TNFD** | Taskforce on Nature-related Financial Disclosures |
| **TPT** | Transition Plan Taskforce |

| | |
|---|---|
| **TSC** | Technical Screening Criteria |
| **UNEP** | United Nations Environment Programme |
| **UNEP FI** | United Nations Environment Programme Finance Initiative |
| **WBCSD** | World Business Council for Sustainable Development |
| **WCEF** | World Circular Economy Forum |
| **WWF** | World Wide Fund for Nature |

# Glossary

**Circular design and production:** Activities that increase resource efficiency through design innovation, process innovation and re-engineering, or material innovation and substitution (European Commission, 2020a).

**Circular use:** Activities that increase resource efficiency through product and asset life cycle extension based on reuse, repair, repurposing, refurbishment or remanufacturing strategies, or through product and asset use optimisation leasing and sharing models (European Commission, 2020a).

**Circular value recovery:** Activities that increase resource efficiency through the recovery of waste in preparation for reuse and recycling or other circular economy strategies (European Commission, 2020a).

**Circular support:** Activities that aim to enable other circular activities and projects and contribute to increasing resource efficiency (European Commission, 2020a).

**Climate transition plan:** A strategic, time-bound action plan outlining how a bank will reduce greenhouse gas emissions and align its operations, assets and business model with climate mitigation targets, such as achieving net-zero emissions by 2050. To be distinguished from transition finance plans (see below).

**Extended producer responsibility (EPR):** A policy approach where producers are given significant responsibility for the treatment or disposal of post-consumer products.

**Glasgow Financial Alliance for Net Zero (GFANZ):** A global coalition of leading financial institutions committed to accelerating the decarbonisation of the economy.

**GFANZ Key Transition Financing Strategies:** Financing, investment, insurance and related products and services that are critical to delivering real-economy emissions reduction in support of an orderly, net-zero transition of the global economy, especially in highly emitting sectors, through:

> **Climate solutions:** Financing or enabling entities and activities that develop and scale climate solutions
>
> **Aligned:** Financing or enabling entities that are already aligned to a 1.5°C pathway
>
> **Aligning:** Financing or enabling entities committed to transitioning in line with 1.5°C-aligned pathways
>
> **Managed Phaseout:** Financing or enabling the accelerated managed phaseout of high-emitting physical assets

**Life cycle assessment (LCA):** Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle.

**Net zero:** Achieving a balance between the greenhouse gases put into the atmosphere and those taken out.

**Scope 1 emissions:** Direct greenhouse gas emissions from sources owned or controlled by an organisation.

**Scope 2 emissions:** Indirect greenhouse gas emissions from the generation of purchased energy.

**Scope 3 emissions:** All indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

**Transition finance plan:** Financial strategy and mechanisms that support the funding of clients' projects and initiatives necessary for an organisation to achieve its climate mitigation targets in hard-to-abate sectors. This includes securing capital through debt financing, equity investments and other financial instruments specifically aimed at decarbonising high-emitting activities and facilitating the transition to a low-carbon economy.

# Contents

# Executive summary

According to the Global Resources Outlook by the International Resource Panel (IRP) and the United Nations Environment Programme (UNEP, International Resource Panel, 2024), resource extraction and processing account for more than 55 per cent of global greenhouse gas (GHG) emissions. Global resource use has already tripled over the last fifty years and is expected to grow further as nations continue their urbanisation and industrialisation, and the global middle class expands. Without change, resource use could increase by 60 per cent from 2020 levels by 2060, leading to a substantial rise in GHG emissions.

Current climate mitigation efforts primarily focus on transitioning to renewable energy and improving energy efficiency. However, the imperative to integrate circular economy principles into financial institutions' climate transition plans represents a transformative opportunity to mitigate GHG emissions and drive sustainable economic growth. By design, circular solutions aim at preventing emissions from occurring in the first place and keeping materials in use for as long as possible. Circular solutions often rely less on major technical breakthroughs or large-scale investments and may therefore be deployed more quickly than strategies focusing on energy efficiency improvements, renewable energy use or $CO_2$ capture and storage (International Resource Panel, 2020).

This paper outlines guidance for banks to effectively embed circular solutions in their climate transition plans to achieve climate mitigation targets.

Banks play a crucial role in driving circularity by helping their clients adopt circular business models and more resource-efficient business practices. This involves supporting innovations in low-carbon materials and recycling technologies, enabling the development of products designed for longevity and reuse, and investing in companies that prioritise sustainable supply chains. Additionally, banks can offer green loans and sustainable finance products tailored to businesses implementing circular practices. This is expected to result in a direct reduction of GHG emissions in the real economy, while helping banks achieve their own climate transition plans and targets. Furthermore, circular solutions present new business opportunities for banks and help them mitigate risks associated with resource scarcity, regulatory changes and shifting consumer trends.

This paper is part of a series of guidance documents focusing on the link between the circular economy and other environmental and social impact areas. While *Circular Economy as an Enabler for Responsible Banking—Leveraging the Nexus between Circularity and Sustainability Impact* gives an overview of the interlinkages between the circular economy and other sustainability objectives, including underlying risks and opportunities for banks, this report specifically focuses on how banks can operationalise the nexus between the circular economy and climate mitigation. This can be done by identifying circular solutions

and opportunities with positive impact on GHG emissions, while integrating them into their climate transition plans across the four action categories in the Principles for Responsible Banking (PRB) framework:

**1. Internal policies and processes**
Banks are encouraged to establish robust internal frameworks that systematically incorporate circular economy principles into core policies and operational processes. This includes integrating circularity criteria into risk assessment, due diligence procedures and lending or sectoral policies, as well as building capacity on the topic of circular economy. By developing sophisticated risk and pricing models attuned to circular economy dynamics, banks can incentivise clients to adopt environmentally sound practices, thereby reducing waste and GHG emissions throughout their operations.

**2. Client engagement**
Effective client engagement is critical for identifying and promoting circular opportunities within client operations. Banks can facilitate the adoption of circular business models through raising clients' awareness, developing and implementing clients' support plan on the circular economy, and offering customised financial products and services. This entails supporting initiatives such as product redesign for longevity, waste reduction strategies and the establishment of closed-loop supply chains. By raising awareness and offering financial products and services to support circular initiatives, banks catalyse substantial reductions in GHG emissions across all operational scopes, fostering sustainable practices and enhancing overall environmental stewardship.

**3. Portfolio composition and financial flows**
Aligning financial flows with climate mitigation targets set by banks committed to advancing the goals of the Paris Agreement involves expanding financing for circular activities with a positive impact on GHG emissions while progressively phasing out support for projects that do not effectively reduce emissions. Specifically, banks can employ two key strategies: reducing financed emissions and reducing emissions through transition finance strategies. Providing targeted financial support to businesses and sectors transitioning towards more sustainable and circular practices helps drive systemic change. This includes funding for technological upgrades, sustainable infrastructure and innovative circular business models.

**4. Advocacy and partnerships**
Collaboration with policymakers, international financial institutions and industry stakeholders is essential for scaling circular finance initiatives. Banks can advocate for policies and regulation that incentivise circular economy practices and facilitate access to de-risking instruments for circular investments. Engagement with NGOs and academia further enhances knowledge exchange and innovation in circular economy practices, advancing effective strategies for reducing GHG emissions and promoting resilient economic growth.

Embracing circular economy principles is not just a strategic imperative for banks but a fundamental pathway to achieving sustainable development and climate resilience. By embedding circularity across internal processes and policies, client engagement, financial portfolios and external partnerships, banks can spearhead a transformative shift towards resilient, low-carbon economies, ensuring long-term environmental sustainability and economic prosperity.

# 1. Introduction

The second biennial progress report on the UNEP FI's Principles for Responsible Banking (PRB) (UNEP, 2023) highlighted that 87 per cent of signatories identified climate change mitigation as their top portfolio impact, with 86 per cent setting climate targets.[1] The Net Zero Banking Alliance (NZBA), part of PRB's climate accelerator programme, has seen increasing commitment, with nine out of ten members on track to set initial targets within 18 months and more than two thirds aligning with 1.5°C scenarios (UNEP FI, 2023). However, there is often a lack of clear action plans to effectively operationalise their decarbonisation approaches. According to UNEP FI's Climate Mitigation Journey for Banks (UNEP FI, 2024a), to facilitate an orderly transition to a net-zero economy, banks require strong competencies and resources to put their climate strategies into action through climate transition plans. These plans provide the overall strategy and roadmap for banks to align their operations, assets and business models with climate goals, typically aiming for net-zero emissions by 2050, by: reducing their financed emissions,[2] and applying transition finance strategies.

This involves implementing the right policies to achieve the committed targets, developing sectoral strategies tailored to their portfolio, redefining client engagement approaches and building transition finance plans. Transition finance plans focus specifically on the financial mechanisms, investments and products designed to fund and facilitate the transition to a low-carbon economy, particularly in high-emitting sectors. The Glasgow Financial Alliance for Net Zero (GFANZ) outlines four key transition financing strategies—Climate solutions; Aligned; Aligning; and Managed phaseout—which accord with other frameworks such as UNEP FI's Net Zero Banking Alliance (NZBA), Climate Bonds Initiative (CBI), Investor Climate Action Plans (ICAPs), the Net Zero Investment Framework (NZIF) and Science Based Target Initiative (SBTi) (GFANZ, 2023). The NZBA takes a sector-specific approach to enabling the transition, utilising the transition plans and targets to compare peers within a sector on their progress and contribution to transitioning to a low-carbon economy. Peer-to-peer comparison enables a bank to sufficiently identify which companies are employing the most efficient climate or circular economy solutions to achieve their goals.

1 For member banks that signed the Principles in 2019, compared to 79 per cent for those who joined in 2020 and 73 per cent for signatories in 2021.

2 This broadly corresponds to Scope 3, category 15 emissions under the GHG Protocol, available at: ghgprotocol.org/sites/default/files/standards_supporting/Chapter15.pdf

When developing and implementing their climate transition plans, banks are encouraged to embrace circular economy solutions. They not only have the potential to reduce GHG emissions but also offer a range of environmental and social co-benefits throughout the value chain, thereby contributing to broader sustainability goals (see *Circular Economy as an Enabler for Responsible Banking—Leveraging the Nexus between Circularity and Sustainability Impact*).

The aim of this guidance therefore is to assist banks in identifying relevant actions to support circular solutions and opportunities that can help banks decarbonise their portfolio in their climate transition plans, for all four categories in the PRB framework.[3] This guidance starts by exploring an approach for banks to identify and finance circular activities, projects and clients and assess how expected GHG emission reductions can contribute to align banks' portfolios with their climate mitigation targets (see Chapter 2). The guidance then proposes examples of possible actions that banks can take across internal policies and processes; client engagement; portfolio composition and financial flows; and advocacy and partnerships (see Chapter 3).

3 The action categories are: Internal policies and processes; Client engagement, Portfolio composition and financial flows, and Advocacy and partnerships.

# 2. Identifying and financing circular solutions and opportunities with positive impact on GHG emissions

In the journey towards achieving climate commitments and targets set under PRB or NZBA, a core element of progress for banks is to identify and finance circular solutions and opportunities that can significantly reduce GHG emissions. Central to this approach is embedding circularity within broader climate transition plans across all four PRB action categories: internal policies and processes; client engagement; portfolio composition and financial flows; and advocacy and partnerships.

Banks first need to identify key sectors and clients with the most significant circular potential and impact on GHG emissions. Banks can then screen their portfolios against specific circularity criteria, which will be further explained in Section 2.1, to identify circular solutions and opportunities. This is followed by an analysis of the corresponding impact on GHG emissions, as outlined in Section 2.2, which will inform banks' financing decisions. By increasing financing of circular solutions and opportunities contributing to reducing financed emissions and emissions reduction through transition finance, and decreasing financing with negative impact on GHG emissions, banks can align their portfolio with climate mitigation targets while achieving additional environmental and social benefits. Figure I illustrates the process banks can follow to integrate circularity into their climate transition plans to achieve climate mitigation targets.

## 2.1 Identifying circular solutions and opportunities

Banks first need to identify the key sectors and clients within the bank's portfolio that significantly impact climate change while also having strong potential for circularity. This involves analysing the composition of the portfolio to determine which sectors have the largest proportion of—and the most significant—environmental impacts. This step also includes engaging with clients to understand their needs and opportunities for adopting circular practices. To identify these key sectors, banks should consider factors such as:

- the proportion of their portfolio represented by each sector
- the resource intensity and environmental impact of different sectors
- the potential for circular economy innovations within each sector
- alignment with national and international circular economy priorities and policies

For more information, see: *Circular Economy as an Enabler for Responsible Banking—Leveraging the Nexus between Circularity and Sustainability Impact*; *Guidance on Resource Efficiency and Circular Economy Target Setting, Version 2* (UNEP FI, 2023a) and; *the Sectors Mapping* (UNEP FI, 2024b).

An indicative list of key sectors with high circularity potential is included in Table 2, illustrating circular opportunities across the value chain in these sectors.

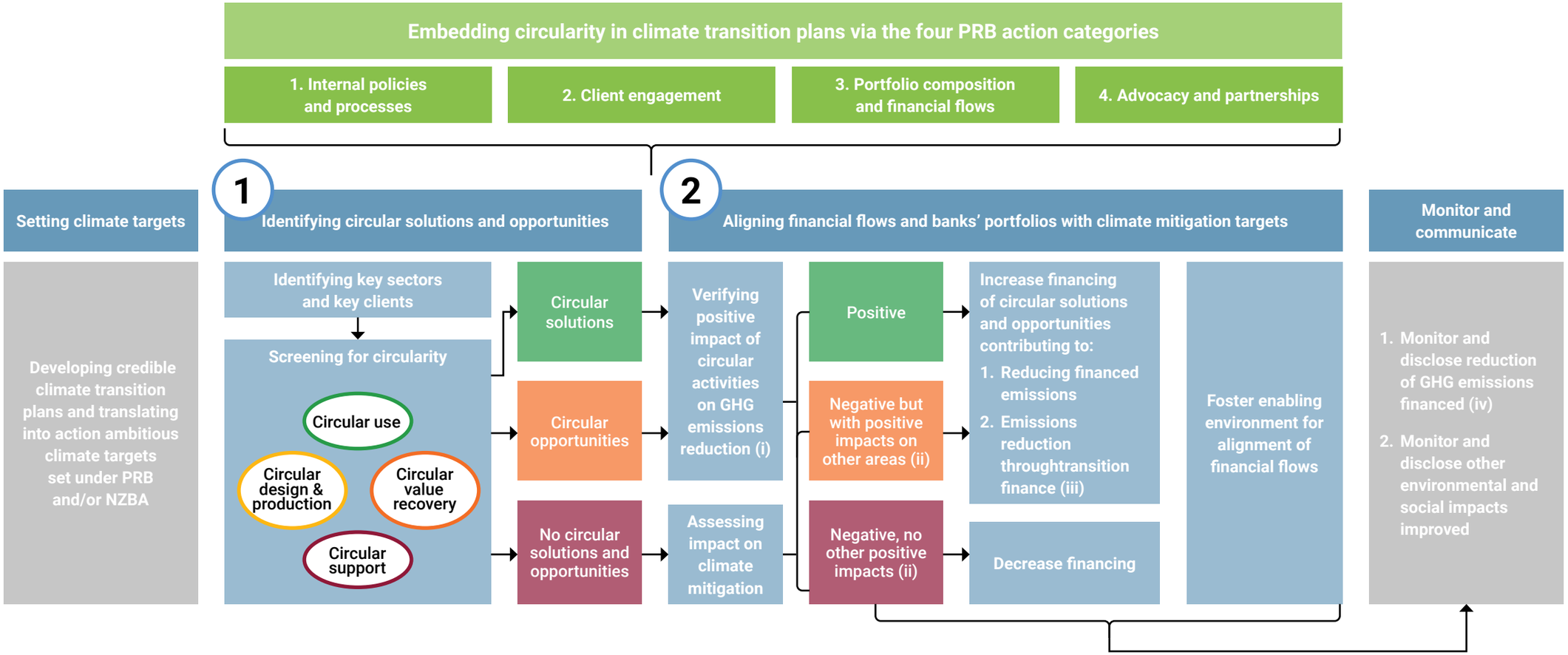
Once a bank has identified key sectors and the main clients operating in key sectors, the next step is to screen its portfolio against a set of circularity criteria (UNEP FI, 2023).[4] This will allow banks to understand and assess whether their financial flows are directed to:

- **Circular solutions:** activities screened positively
- **Circular opportunities:** activities screened negatively but which have the potential to increase their circularity
- **Non-circular solutions with no circular opportunities:** activities screened negatively that do not have the potential to become more circular. It is expected that rarely will an activity have no circular opportunity.

Circular solutions and opportunities are expected to have a positive impact on GHG emissions and, subject to validating the expected GHG emissions reduction (see Section 2.2), banks are encouraged to support such solutions and opportunities in their climate transition plans. As for non-circular solutions with no circular opportunities, banks need not reduce their exposure if these activities have a proven positive impact on GHG emissions (or any other impact area). See Section 2.2 for further details.

The set of circularity criteria that banks can use to screen their portfolio is defined by mandatory regulation, if in place in the relevant region (such as the EU Sustainable Finance Taxonomy (European Commission, 2020), the Corporate Sustainability Reporting Directive (CSRD) (European Commission, 2022) and ESRS E5 in the European Union, and by voluntary circular economy categorisation systems and methodologies.

4 For more detail on the selection of sectors and relevant circularity criteria, see UNEP FI's Resource Efficiency and Circular Economy Target Setting Guidance, Version 2, (UNEP FI, 2023)




i. Circularity is generally expected to have a positive impact on GHG emissions reduction, observing a negative impact is expected to occur only in rare cases

ii. Positive impacts on other areas such as nature, pollution, healthy and inclusive economies

iii. E.g. defined by GFANZ' Key Transition Finance Strategies (similar to other frameworks such as NZBA, CBI, ICAPs, NZIF, SBTi):

1. Climate Solutions,
2. Aligned
3. Aligning
4. Managed Phase Out

iv. Report reduction of GHG emissions financed and alignment with GFANZ Key Transition Finance Strategies (or under other frameworks such as NZBA, CBI, ICAPs, NZIF, SBTi)

**Figure I:** Integrating circularity in transition plans to achieve climate targets
See the Guidance for further details

Circular economy categorisation systems developed by authorities, organisations or initiatives by the financial sector, define categories of circular business models and include criteria to determine whether a business model or an activity classifies as circular. These circularity criteria will mainly consist of qualitative indicators, and when possible quantitative indicators, to help banks ask clients the right questions to gather data on their level of circularity. This ultimately allows banks to identify circular solutions and opportunities in high-impact sectors that are key for the transformation to a circular economy (see *Circular Economy as an Enabler for Responsible Banking—Leveraging the Nexus between Circularity and Sustainability Impact*, Chapter 3).

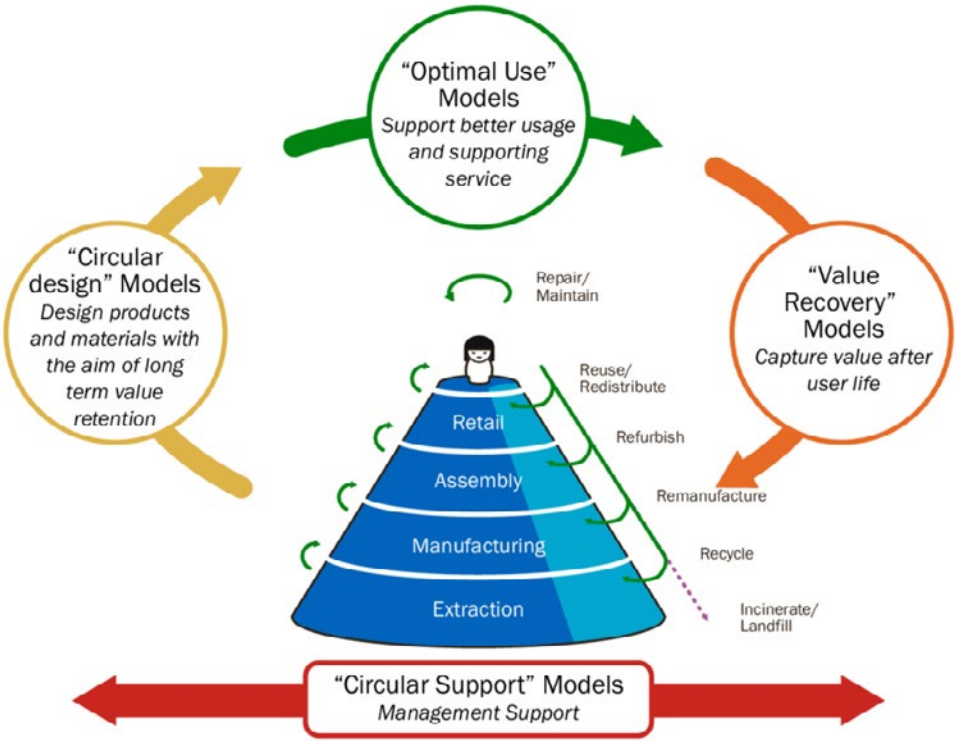



**Figure II:** Business model categories according to the European Commission Categorisation System

In 2020 the European Commission developed a categorisation system for the circular economy (European Commission, 2020) (hereafter called "the European Commission Categorisation System"), which is generally considered one of the most comprehensive systems to date. It defines four categories of circular business models that contribute to increasing resource efficiency and decreasing environmental impacts throughout the value chain, as displayed in Figure II:

1. **Circular design and production:** activities that increase resource efficiency through design innovation, process innovation and re-engineering, or material innovation and substitution
2. **Circular use:** activities that increase resource efficiency by extending product and asset life through reuse, repair, repurposing, refurbishment or remanufacturing strategies, or through product and asset use optimisation leasing and sharing models
3. **Circular value recovery:** activities that increase resource efficiency through recovery of waste in preparation for reuse and recycling or other circular economy strategies
4. **Circular support:** activities that aim to enable other circular activities and projects that contribute to increasing resource efficiency

Due to its comprehensive nature, the European Commission Categorisation System can also be used by non-European banks if no other categorisation system is already in place in their region or jurisdiction. Other methodologies or circular economy categorisation systems have been developed under voluntary initiatives, as shown in Table 1, and may be used to define a set of circularity criteria to screen banks' portfolios. (See Guidance on Resource Efficiency and Circular Economy Target Setting, Version 2 (UNEP FI, 2023) for further information on and examples of circularity criteria.)

**Table 1:** Examples of regulation, circular economy categorisation systems and methodologies that may be possible sources of circularity criteria (non-exhaustive)

| Regulation/Framework/Standard | Type | Developed by |
|---|---|---|
| European Commission Categorisation System | Regulation | European Commission |
| Corporate Sustainability Reporting Directive (CSRD) | Regulation | European Commission |
| EU Sustainable Finance Taxonomy Technical Screening Criteria (developed at sectoral level, for certain sectors only) | Regulation | European Commission |
| Circular Economy Finance Guidelines | Circular economy categorisation system | Dutch Banks ABN Amro, ING, Rabobank |
| Financiamiento de Inversiones de Economía Circular (Methodology developed for Colombia) | Guideline | IADB, IDB Invest and BASE with Colombian banks Bancoldex, Bancolombia and Banco de Bogota |
| Financing the Circular Economy: A Guidance Document for Canadian Financial Institutions | Guideline | Circular Economy Leadership Canada in collaboration with UNEP FI, Delphi and a group of Canadian banks |
| Circulytics<br>Mapping Circular Economy Indicators to EU reporting requirements | Guidance (metrics) | Ellen MacArthur Foundation, (with more than 2,000 companies). A mapping between circularity metrics under Circulytics and under ESRS E5 has also been developed. |
| Circular Transition Indicators | Guidance (metrics) | World Business Council for Sustainable Development (WBCSD) and member companies |
| Suggested Impact Reporting Metrics for Circular Economy and/or Eco-Efficient Projects | Guidance (metrics) | International Capital Market Association (ICMA) Green Bond Principles Impact Reporting Working Group |

Mandatory | Voluntary

Table 2 provides an overview of key sectors with significant environmental impacts and potential for circular economy interventions. For each sector, examples of circular solutions are presented across the four categories of circular business models as defined in the European Commission Categorisation System.

**Table 2:** Examples of circular solutions across key sectors and circular business models (non exhaustive)

| Key sectors | Circular business model category | | | |
|---|---|---|---|---|
| | **Circular design and production** | **Circular use** | **Circular value recovery** | **Circular support** |
| **Agriculture and Food Systems** | Regenerative farming practices (for example, crop rotation, cover cropping, agroforestry, organic fertilisers, reduced pesticides) | Reducing food waste through better supply chain management and storage | Composting organic waste and recycle agricultural plastics | Digital platforms for food sharing and redistribution |
| | Precision agriculture techniques for efficient resource use | Promoting plant-based diets and alternative proteins | Producing biogas and organic fertiliser from agricultural residues | Education programmes on sustainable farming and consumption |
| | Vertical farming and urban agriculture to reduce land use | Encouraging local and seasonal consumption | Transforming food by-products and waste into new food products or animal feed | Soil health monitoring and management services |
| | Design crops for resilience and longevity | Implementing efficient irrigation systems | Recovering nutrients from wastewater for fertilisers | Precision agriculture data analytics and advisory services |
| **Buildings and Construction** | Use of recycled and renewable materials | Adaptive reuse of buildings, extending the life of existing structures | Recycling construction and demolition waste, material recovery | Building material passport and tracking platforms |
| | Modular design for easy disassembly and reuse | Implementing smart building technologies for efficient resource and water use | Urban mining to reclaim materials from existing buildings | Construction waste exchange marketplaces |
| | Design for material efficiency and longevity | Sharing and multi-purpose spaces to maximise utilisation | Implementing material passports to track building components for future reuse | Circular building design software and consulting services |

| Key sectors | Circular business model category | | | |
|---|---|---|---|---|
| | **Circular design and production** | **Circular use** | **Circular value recovery** | **Circular support** |
| **Electronics and ICT** | Designing for easy repair and upgrade, modular components | Extending product life through refurbishment and resale | Recycling electronic waste | Consumer awareness and bring-back programmes |
| | Use of recycled and recyclable materials | Implementing product-as-a-service models | Recovering valuable materials | Electronics repair and refurbishment marketplaces |
| | Phasing out hazardous substances | Implementing second-hand markets for electronics and ICT | Remanufacturing components | Product life cycle management software for electronics |
| **Manufacturing** | Design for longevity, repairability, and recyclability of products | Implementing product-as-a-service models, where products are leased rather than sold | Remanufacturing and refurbishing products, recycling materials | Industrial symbiosis platforms connecting waste producers with potential users |
| | Use of modular design and lean manufacturing techniques | Extending product life through maintenance and upgrades | Industrial symbiosis to use waste as inputs for other processes | Circular supply chain management software |
| **Mining** | Designing mining operations for minimal waste and environmental impact | Implementing water recycling | Recovering valuable materials and water from mine tailings and waste rock | Water treatment and recycling technologies for mining operations |
| | | Implementing resource efficiency measures in mining processes | Recycling mining equipment and materials | Mining equipment sharing and leasing platforms |
| **Packaging** | Designing packaging for reuse and recyclability, using biodegradable materials | Implementing reusable packaging systems | Recycling packaging materials | Packaging waste collection and recycling platforms |
| | Reducing packaging materials | Promoting refillable containers | Composting biodegradable packaging | Biodegradable packaging material development and consulting |

| Key sectors | Circular business model category | | | |
|---|---|---|---|---|
| | **Circular design and production** | **Circular use** | **Circular value recovery** | **Circular support** |
| **Textiles and Fashion** | Designing for durability and recyclability, using sustainable materials | Clothing rental and resale platforms, promoting second-hand markets | Recycling textiles into new fibres, upcycling old garments | Clothing rental and resale platforms |
| | Use of recycled and renewable fibres | Upcycling and repairing garments | Transforming textile waste into new products | Textile recycling technology and services |
| **Transport and Vehicles** | Designing vehicles for longevity and recyclability | Extending vehicle life through maintenance and upgrades | Remanufacturing vehicle parts, recycling end-of-life vehicles | Platforms for electric vehicle battery recycling and vehicle part remanufacturing and exchange |
| | Use of lightweight and sustainable materials | Car-sharing and mobility-as-a-service models | Recycling tyres and other vehicle components | Car-sharing and mobility-as-a-service platforms |
| **Waste Management and Recycling** | Developing products that are easier to recycle | Implementing efficient waste collection and sorting systems | Advanced recycling technologies, for example, allowing material recovery from mixed waste | Smart waste sorting and tracking technologies |
| | Designing waste management systems for efficiency | Implementing pay-as-you-throw (PAYT) programmes | Upcycling and repurposing waste materials into products of higher value or functionality | Recycling process optimisation software and consulting |
| **Water Treatment** | Designing water treatment systems for resource and chemical efficiency | Implementing water reuse and recycling systems | Recovering nutrients from wastewater treatment processes | Water quality monitoring and management platforms |
| | Designing resource-efficient systems, for example, closed-loop water systems, using water-saving technologies | Smart water metering | Water reclamation and reuse systems | Nutrient recovery technologies from wastewater |

**Source:** Own illustration adapted from: Ellen MacArthur Foundation, 2020; Ellen MacArthur Foundation, n.d; Circle Economy, n.d; UN Partnership for Action on Green Economy, 2023

## 2.2 Aligning financial flows and banks' portfolios with climate mitigation targets

Once a bank has identified circular solutions and opportunities in its portfolio, it needs to assess their impact on GHG emissions to align its portfolio with climate mitigation targets. The GHG emissions attributable to banks can be categorised into three scopes, reflecting the different sources and types of emissions they need to consider:

- **Scope 1 and Scope 2 emissions:** Direct emissions (Scope 1) from sources that are owned or controlled by the bank, including emissions from the bank's facilities and vehicles, as well as indirect emissions (Scope 2) from the generation of purchased electricity, steam, heating and cooling consumed by the financial institution. They typically represent less than 1 per cent of banks' total emissions.
- **Scope 3 emissions:** All other indirect emissions that occur in the value chain of the financial institution, with the most significant climate impacts coming from their financed emissions—the GHG emissions associated with their lending, investment and other financial services activities (part of category 15 (investments) in the Greenhouse Gas Protocol) being the most significant component of a bank's Scope 3 emissions. Under the Greenhouse Gas Protocol, banks are currently only required to account for Scope 1 and 2 emissions associated with invested capital, debt holdings and long-term financing of projects, and including the Scope 3 emissions of their clients is optional unless they choose to adopt the optional boundary (GHG Protocol, 2013).

Banks work mainly on Scope 3, category 15 emissions, for which they set climate mitigation targets. To achieve them, they need to put in place climate transition plans to both reduce their financed emissions and to reduce emissions through transition finance strategies.

With Scope 3 emissions accounting on average for 75 per cent of companies total emissions, with significant variation across sectors (Carbon Disclosure Project, 2023) banks are encouraged to consider the full emissions profile of their clients to confirm whether a circular solution or opportunity identified under the previous step (see Section 2.1) genuinely reduces emissions across clients' Scope 1, Scope 2, and Scope 3 categories.

As Scope 3 emissions originate from sources not directly owned or controlled by the company, including both upstream and downstream activities, they remain challenging to measure and reduce due to the lack of reliable data and limited operational control over value chain activities. Banks must accurately project the future impact on GHG emissions and gather comprehensive data from their clients' climate transition plans. A 2024 study by the Network for Greening the Financial System (NGFS) revealed that financial institutions often struggle to obtain sufficient data on transition plans, especially from companies in their clients' upstream and downstream value chains (NGFS, 2024). At the same time, the need for more granular Scope 3 emissions data is pressing, as they account for more than 99 per cent of financial institutions' total emissions (Carbon Disclosure Project, 2023).

Pressure for companies to accurately calculate, disclose and reduce Scope 3 emissions has been increasing in recent years due to ongoing requests to submit and validate science-based reduction targets, climate transition plans and regulations such as the CSRD, or the US Securities and Exchange Commission (SEC) March 2024 climate-related rule. This trend is reinforced by the recent partnership between the Greenhouse Gas Protocol and the International Sustainability Standards Board (ISSB) to align their frameworks and ensure that companies' emissions data, including Scope 3, meets global capital market needs (GHG Protocol, 2024). As the GHG Protocol updates its standards, among others to reflect circular economy principles, these considerations will likely be integrated into ISSB standards, leading to more comprehensive and consistent reporting on circular economy initiatives and their impact on GHG emissions.

As explained in the paper on *Circular Economy as an Enabler for Responsible Banking—Leveraging the Nexus between Circularity and Sustainability Impact*, circular activities reduce the demand for new raw materials and reliance on fossil fuels and are therefore expected to result in an overall reduction of GHG emissions, except in rare situations. Circular solutions notably provide a practical approach to decreasing Scope 3 emissions for banks' clients (summarised in Table 3), particularly those originating from activities such as supply chain operations, transportation, product usage and disposal. This is because circular economy principles focus on reducing resource use, keeping materials in use for as long as possible, minimising waste and regenerating natural systems. For instance, by recycling materials instead of producing new ones, the energy-intensive processes associated with raw material extraction and processing are avoided, leading to significant reductions in GHG emissions. Similarly, implementing efficient waste management systems help conserve resources and energy and thereby contribute to lowering companies' carbon and overall environmental footprint. For companies of the real economy, category 1 (purchased goods and services), category 2 (capital goods), category 5 (waste generated in operations), category 11 (use of sold products) and category 12 (end-of-life treatment of sold products) as defined in the Greenhouse Gas Protocol (GHG Protocol, 2013) offer the biggest opportunities to reduce their GHG emissions via circular solutions, as summarised in Table 3.

**Table 3:** Examples of circular solutions to reduce Scope 3 GHG emissions under categories 1, 2, 5, 11 and 12 of the Greenhouse Gas Protocol

| Circular strategies to decarbonise Scope 3 GHG emissions (for clients) | | | | |
|---|---|---|---|---|
| **Category 1** | **Category 2** | **Category 5** | **Category 11** | **Category 12** |
| **Purchased goods and services** | **Capital goods** | **Waste generated in operations** | **Use of sold products** | **End of life treatment of sold products** |
| Reduce resource use e.g. by improved demand forecasting, product-as-a-service (PaaS) models, and purchase of lightweight, material-efficient, and energy efficient products | Conduct thorough lifecycle assessments to identify and minimise resource use at every stage of a capital good's life, from raw material extraction to end-of-life disposal | Minimise resource and material waste through recovery and recycling programs and improved inventory management | Make products more efficient including substituting materials for lighter weight options and improving product efficiency | Reuse |
| Circular procurement at system level, supplier level and product level | Extend lifespan and durability by designing capital goods with enhanced durability and the ability to be easily repaired, upgraded or replaced | | | |
| Supplier engagement on how to increase circularity levels in their operations | Apply advanced manufacturing techniques (for example lean practices), and recycling in the production of capital goods | Create industrial symbiosis networks where waste or by-products from one process are used as raw materials for another process | Enhance modular design of products | Recycle |
| Education, capacity building and stakeholder ecosystem collaboration | Adopt circular supply chain practices, such as remanufacturing and refurbishing | Use lean manufacturing techniques and new technologies for process optimisation and efficient resource use | | |

**Source:** Adapted from EY, 2023

### 2.2.1 Verifying positive impact on GHG emissions and other sustainability topics

Circular solutions and opportunities are expected to reduce GHG emissions, yet verifying this reduction is crucial to ensure the effectiveness and accuracy of the claimed benefits and to address any potential trade-offs. Banks need to ensure that GHG emissions reductions attributed to circular solutions are credible, reliable and genuinely contribute to their climate mitigation targets.

Hence, after a bank has identified circular solutions and opportunities in its portfolio, it still needs to confirm the positive impact on climate mitigation and ensure that no negative interlinkages arise. For non-circular solutions with no opportunities, assessment of GHG emissions reduction is also necessary to inform the bank's financing decision.

Table 4 summarises the different material and guidance for carbon accounting (not specific to circular solutions) that banks can use to assess the impact on GHG emissions.

To date, quantitative evidence for the effectiveness of circular economy strategies to mitigate climate change is often lacking. Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Accounting & Reporting Standard and its Technical Guidance for Calculating Scope 3 Emissions (GHG Protocol, 2013) specify itemised calculation methods (including formulas, activity data, emission factor types, and data collection guidance), notably Appendix D (GHG Protocol, n.d.).

**Table 4:** Carbon accounting materials and guidance

| Overview of materials and guidance | UNEP FI materials and guidance | Resources by other actors of the ecosystem |
|---|---|---|
| Some guidance on carbon accounting is provided by UNEP FI through the Principles for Responsible Banking framework and the Climate Risk Programme. Carbon accounting standards and carbon emissions factors can be leveraged for carbon accounting purposes, taking into consideration any national carbon measurement requirements and mandates. | ▪ Principles for Responsible Banking Guidance<br>▪ PRB Academy—Unit 4: Monitoring and reporting banks´ GHG emissions and a Call to Action<br>▪ Exploring Metrics to Measure the Climate Progress of Banks | ▪ The Greenhouse Gas Protocol (by the WRI and WBCSD)<br>▪ Global GHG Accounting & Reporting Standard for the Financial Industry + PCAF Academy (by the Partnership for Carbon Accounting Financials)<br>▪ Emissions Factor Database (by the Intergovernmental Panel on Climate Change)<br>▪ Emissions Factors (by the International Energy Agency)<br>▪ Emissions Factors (by the Joint Impact Model) |

**Source:** (UNEP FI, 2024a)

As measurement methods improve and regulations become stricter, it is likely that banks will be required to account for a broader range of their clients' Scope 3 emissions. Work is underway to update the GHG Protocol and better integrate circular solutions and better assess their impact on GHG emissions, in particular to improve accounting for emissions associated with long-lived and durable products, the allocation of cradle-to-grave emissions attributable to recycled or reused goods and materials, and other economic activities that divert waste from landfill and unlock circularity (GHG Protocol, 2024). In 2025 the Greenhous Gas Protocol are expected to release draft standards and guidance, which will be updated and published in 2026. Possible directions of updates include adjusting the GHG Protocol's inventory approach with a "gross-flow" approach to account for atmospheric $CO_2$ removal and uptake in materials in the year that removal and uptake occurs, and eventual emissions from end-of-life treatment in the year that emissions are released (GHG Protocol, 2024). In addition, the Ellen MacArthur Foundation is working to ensure circular economy activities and their impact are better reflected in the Scope 3 standard and guidance, by collating and articulating the challenges and opportunities faced by businesses. Banks are encouraged to align their work with evolving guidance and best practices that will emerge inter alia from this work.

### 2.2.2 Increasing circular financing with positive impact on climate mitigation and decreasing financing in absence of positive impact

Assessing the GHG emission reduction will inform banks' financing decision. To align financial flows and banks' portfolios with climate mitigation targets, banks should increase financing towards circular solutions and opportunities that contribute to:

- **Reducing financed emissions:** this involves banks actively financing initiatives that directly lower GHG emissions of their loan and investment portfolios. This can be achieved by supporting clients who implement circular business models or by help-

ing existing clients transition to circular practices. These practices, which focus on resource efficiency, waste reduction and sustainable product life cycle management, contribute significantly to lowering overall GHG emissions.

- **Emissions reduction through transition finance:** This includes financing the transition of clients towards lower-carbon practices to drive economy-wide decarbonisation in high-emitting sectors. Entirely withdrawing finance (namely, divesting) from high-emitting assets[5] may lead to unintended consequences by prolonging their life or even worsening their GHG emissions profile if they are transferred to actors with less climate ambition, disclosure or scrutiny (GFANZ, 2022). GFANZ provides a framework for this (GFANZ, 2022), encompassing four key transition financing strategies:[6]
  - **Climate solutions:** Solutions—assets and entities that directly remove or reduce real-economy GHG emissions (for example, reuse, sharing solutions, or Product-as-a-Service), Enablers—assets and entities that indirectly contribute to, but are necessary for, emissions reductions by facilitating the deployment and scaling of Solutions or supporting the decarbonisation of other actors' operations (for example, critical infrastructure, components, or raw materials), and Nature Based Solutions[7]—actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits (for example, agroforestry or managed grazing).
  - **Aligned:** Entities that are well on track or have successfully transformed or repositioned their operations to be net-zero aligned (whose operations or business models are demonstrably in line with ambitious, science-based targets, such as those validated by the SBTi or assessed by the World Benchmarking Alliance).
  - **Aligning:** Entities that currently fall short of full alignment with net-zero objectives yet demonstrate progress and are converging toward net zero. This includes entities committed to transitioning in line with 1.5°C-aligned pathways by actively setting and pursuing targets that have robust net-zero transition plans, setting targets aligned to sectoral pathways, and implementing changes in their business to deliver on their net zero targets.
  - **Managed phaseout:** Financing or enabling the accelerated managed phaseout (for example, via early retirement) of high-emitting physical assets, ensuring a just transition and avoiding unintended consequences of divestment. Transitioning to circular business models offers a viable solution to fossil-fuel-dependent activities, promoting resource- and energy-efficient alternative investments.

5 Many high-emitting assets need to be operated and financed in the near term while technologies to replace them are deployed, especially in emerging markets and developing economies.

6 The definition of these strategies aligns with other frameworks such as NZBA, CBI, ICAPs, NZIF and SBTi.

7 The treatment of nature-based solutions is rapidly developing but is still new and evolving.

**Box 1: Theoretical example of circular solution qualifying as a climate solution as given by GFANZ report**

**Example:** Li-Cycle
**Type:** Rare earth metal recycling
**Sector(s):** Materials

Lithium is a critical component of EV batteries, and EV batteries are a critical component to EVs, which directly lower emissions through the replacement of internal combustion engines. Lithium is also essential for the storage of renewable energy. Accordingly, the demand for batteries is set to grow exponentially over the next decade. The impending increase in demand will make scaling the recycling of lithium-ion batteries even more important, not only to reduce environmental harm from traditional mining practices but also to help further cut the cost of battery and EV production. While many countries are eager to increase domestic supply for these critical materials, rising costs and unclear policy priorities risk slowing this critical component of the battery and EV supply chain. Recycling lithium-ion batteries is essential to the net-zero transition for the transportation and energy sectors. Established in 2016, Li-Cycle is North America's largest pure-play lithium-ion battery recycler with a rapidly growing business in Europe. The company leverages its patented Spoke & Hub Technologies™ to recover critical materials from various types of lithium-ion batteries. Li-Cycle builds a closed-loop battery supplychain around this essential component of EV's by recycling all formats of lithium-ion batteries with up to 95% efficiency and no creation of landfill waste in the process.

**Source:** (GFANZ, 2023)

To align their financial flows and portfolios with climate mitigation targets, banks should not only increase financing towards circular solutions but also **decrease financing for activities that do not show a positive impact** on climate mitigation and other sustainability areas. This involves phasing out financing for these projects, as they are expected to contribute to increased waste and inefficient resource utilisation, thereby hindering circularity and the achievement of a bank's climate targets.

As the assessment of linkages between circularity and GHG emissions reduction continues to evolve, it is crucial for banks to develop robust **monitoring systems** and impact assessment tools for circular activities. These tools should be adaptable and refinable as new data and methodologies become available. By leveraging existing indicators and databases, such as those provided by the International Resource Panel (IRP) (International Resource Panel, n.d.), the OECD (OECD, 2020) or the European Environment Agency (EEA) (European Environment Agency, n.d.), banks can track the outcomes of their circular economy action plans and ensure that their support for circular solutions genuinely contributes to emissions reduction and avoidance.

# 3. Actions to leverage circular solutions and opportunities in banks' climate transition plans

The paper *Circular Economy as an Enabler for Responsible Banking—Leveraging the Nexus between Circularity and Sustainability Impact* describes the elements of an action plan under the Principles for Responsible Banking with types of actions banks can undertake to manage the interlinkages between the circular economy and other impact areas and topics. This chapter explores concrete actions that banks can take to integrate circular solutions support into their climate transition plans. The actions are illustrative and banks can add more actions, based on sector, regional and regulatory context most suited to them and the clients they engage with.

The following sections present illustrative, non-exhaustive lists of actions that banks can take to integrate support for circular solutions (circular design and production, circular use, circular value recovery, circular support) into their climate transition plans (at bank level), and the expected impact on GHG emissions in the real economy (at client level, for Scope 1, 2 and 3 emissions). Banks then need to monitor and report the impact on financed GHG emissions and, if applicable, the contribution to GFANZ's key transition financing strategies.

Table 5 provides an overview of the action categories defined by the PRB, including underlying sub-categories.

**Table 5:** Summary of actions across all four PRB action categories

| PRB action categories | Sub-categories of actions |
|---|---|
| **Internal policies and processes** | Due diligence, risk assessment and other internal processes |
| | Sectoral policies and other internal policies |
| | Internal capacity building |
| **Client engagement** | Clients' awareness raising |
| | Client support plan |
| | Products and services offering |
| **Portfolio composition and financial flows** | Increasing circular financing with positive impact |
| | Decreasing financing in absence of positive impact |

| | |
|---|---|
| **Advocacy and partnerships** | Engaging with policymakers |
| | Partnering with other financial institutions including development financial institutions |
| | Engaging with industry initiatives, civil society and academia |

## 3.1 Internal policies and processes

Establishing a robust internal set-up is a key component of the transition plans that banks need to put in place to achieve their climate targets with circular economy as an enabler. Establishing internal processes and capacity will help support client engagement on the circular economy and its interlinkages with climate mitigation and other impact topics. Integrating circularity concepts into core policies and key processes also significantly enhances data availability, which is essential for informed decision-making and strategic planning. Banks need reliable data and clear baselines to make informed lending and investment decisions for projects. This includes credible information and metrics to ensure their financial support aligns with sustainability goals. Table 6 includes examples of priority actions for internal policies and processes (non-exhaustive):

**Table 6:** Integrating circularity in **internal policies and processes** to achieve climate mitigation targets—sector agnostic actions for banks.

| Actions by banks to integrate circular solutions into climate transition plans (bank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| **Due diligence, risk assessment and other internal processes** | | |
| Consider circular economy and important interlinkages with other impact areas and topics in key processes such as Know Your Customer (KYC), risk management and due diligence. For instance, banks can develop risk and pricing models that are tailored to the specifics of the circular economy in terms of price volatility of raw materials, credit risk, asset valuation and management of the installed asset base. | Integrating circular economy principles and interlinkages into a bank's key processes is a prerequisite for encouraging and incentivising companies to adopt environmentally friendly practices, reducing waste and GHG emissions associated with conventional production. | Across value chain |
| Develop processes and methodologies to improve data and measurement of circularity and its expected impact on climate mitigation and other relevant impact topics, using applicable metrics.<br>It is recommended to put in place data collection templates to foster data collection efficiency and standardisation and to ease the processing of data. | Data availability and quality is a prerequisite for managing a company's emissions profile and identifying opportunities for cost savings by increasing resource efficiency at every stage of the product life cycle. It encourages companies to better understand their own level of circularity and interlinkages with climate and other impact areas, helping them identify key processes and interventions with high potential for GHG emission reductions. | Across value chain |
| **Sectoral policies and other internal policies** | | |
| Develop and implement lending policies in key sectors that incorporate circular economy principles and recognise the interlinkages between a circular economy and other impact topics, including climate mitigation. These policies should contain criteria for financing based on a company's adherence to circular practices, for example, reduced waste and material use, enhanced resource efficiency, or the adoption of low-carbon technologies and regenerative practices. | Integrating circularity criteria into lending policies incentivises companies to enhance circular practices, while also fostering innovation and investment in sustainable business practices. This promotes resource efficiency, waste reduction, and the adoption of low-carbon product design and manufacturing methods, resulting in decreased GHG emissions and a reduced environmental footprint. These efforts extend beyond a company's direct operations (Scope 1) and indirect energy consumption (Scope 2), also addressing emissions associated with supply chains and product life cycles. | Across value chain |

| Actions by banks to integrate circular solutions into climate transition plans (bank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| **Internal capacity building** | | |
| Build knowledge and awareness through specialised training for board members and client-facing employees on circular economy practices and interlinkages with climate mitigation (and other impact areas). | This equips bank personnel with the knowledge to support and promote circular projects, which is a prerequisite for reducing GHG emissions and resource use across all scopes of a company. | Across value chain |
| Build internal capacity to support client engagement on the circular economy and its interlinkages with other impact areas and topics, including a robust client engagement strategy and portfolio impact analysis. This also includes the development of new products and services to encourage and support their clients' circular business models, technologies and operation. | Educating and assisting businesses in adopting circular business models, technologies, and operations is a prerequisite for reducing waste and enhancing resource efficiency, thereby lowering GHG emissions in their operations. | Across value chain |

## 3.2 Client engagement

By engaging with clients, banks can identify circular opportunities in their value chains that reduce financed GHG emissions and support GFANZ transition finance strategies. This requires banks to understand clients' climate transition plans, their reliance on circular solutions, potential for increased circularity, expected GHG reductions and monitoring methods. For efficient client engagement, banks are encouraged to raise awareness and develop a client support plan, which includes concrete proposals for transition plans and action plans and addresses interlinkages between areas of impact addressed. Banks should tailor their interventions and adapt their guidance for client engagement to effectively address regional differences in terms of risks, opportunities and demand. Banks are also encouraged to offer tailored products and services to incentivise the adoption of circular practices, for instance by including circularity-linked criteria. See UNEP FI's Resource Efficiency and Circular Economy Target Setting Guidance, Version 2 (UNEP FI, 2023) for more information on client engagement templates and for an example of a sector-agnostic client engagement template on circularity. Table 7 includes examples of priority actions for client engagement (non-exhaustive):

**Table 7:** Integrating circularity in **client engagement** to achieve climate mitigation targets—sector agnostic actions for banks

| Actions by banks to integrate circular solutions into climate transition plans (cank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| **Clients' awareness raising** | | |
| Raise awareness with clients around the benefits of circular solutions and make sure interlinkages with climate mitigation are clear to clients, notably regarding the highest value reuse channels for products, materials and component parts. | Increased expertise on the circular economy enables businesses to identify opportunities for reusing products, materials, and component parts. This awareness can lead to a reduction in the need for new production, which is a prerequisite for reducing Scope 1 emissions (from operational activities), Scope 2 emissions (from purchased energy) and Scope 3 emissions (from the value chain). | Across value chain |
| Help clients understand and assess the emission reduction potential of shifting to circular practices, for example by defining appropriate key performance indicators (KPIs) and using tools such as life cycle assessment (LCA) to identify the most material waste streams and resource-intensive processes across the value chain—from raw material extraction to end-of-life disposal. | By integrating environmental impacts with business considerations, companies can identify opportunities to minimise emissions throughout the product life cycle and prioritise high-impact projects and sectors. Such a comprehensive assessment allows companies to reduce Scope 1 emissions by optimising production processes and minimising waste, and Scope 2 emissions by improving energy efficiency. The most substantial emission reductions are expected in Scope 3 as it covers the entire value chain, including upstream and downstream activities. | Across value chain |
| **Client support plan** | | |
| Engage with clients to embed circularity into everyday operational decision-making and collaborate with suppliers to establish closed-loop supply chains. | Closed-loop supply chains promote resource efficiency by enabling products to be disassembled and components to be reused or recycled. This reduces reliance on virgin materials, decreases waste generation, and thereby directly contributes to emissions reduction and avoidance across the entire value chain—by lowering emissions from energy-intensive manufacturing processes (Scope 1); from purchased energy (Scope 2); and from suppliers, waste disposal, transportation and logistics (Scope 3). | Across value chain |

| Actions by banks to integrate circular solutions into climate transition plans (cank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| Support clients in designing products and packaging with recycled, renewable, or sustainably procured inputs (for example, through regenerative practices), provided that their production does not have detrimental impacts in terms of climate and other impact areas. | Relying on recycled material inputs reduces the need to extract new raw materials, while the design of products with biodegradable or compostable materials reduces the environmental impact at the end of their life cycle. This results in a decrease in the overall carbon footprint associated with production and waste management processes, spanning all scopes. The biggest emission reduction potential is expected in Scope 3, as it encompasses the entire value chain, including upstream and downstream activities such as raw material extraction, production, transportation and end-of life treatment. | Circular design and production |
| Assist clients in adopting modular design principles to extend product life and facilitate easy repair and upgrading. | Designing products for modularity can extend their lifespan, reducing the frequency of replacement and thereby lowering emissions associated with production, transportation and disposal. This primarily impacts Scope 3 emissions, as it decreases the demand for new materials and reduces the carbon footprint across the value chain. Additionally, encouraging a repair culture further reduces the need for new resources, impacting both Scope 3 and, to a lesser extent, Scope 1 emissions due to reduced manufacturing activities. | Circular design and production |
| Advocate for the use of advanced manufacturing technologies to reduce material waste and improve production efficiency. | Using advanced manufacturing technologies allows for precision in production, minimising resource and energy consumption. This primarily affects Scope 2 emissions by lowering the energy required for manufacturing processes, and Scope 3 emissions through more efficient use of materials and reduced waste. | Circular design and production |
| Advise clients on implementing recycling programmes to incorporate and recapture valuable materials (for example, take-back models), while maintaining a robust and cost-effective logistics network to recover products post-use. | Recycling programs help businesses incorporate and recapture valuable materials, reducing the need for new production and lowering emissions associated with resource extraction and processing. This significantly impacts Scope 3 emissions by decreasing upstream emissions from raw material extraction and processing. Efficiently collecting and transporting products for materials recovery, reuse, and recycling also minimises emissions compared to traditional disposal methods such as landfilling or incineration, further impacting Scope 3. | Circular value recovery |

| Actions by banks to integrate circular solutions into climate transition plans (cank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| Help clients adopt extended producer responsibility (EPR) programmes to take responsibility for the entire life cycle of their products, leading to improved resource recovery and recycling. | Extended producer responsibility (EPR) programmes incentivise businesses to take responsibility for the entire life cycle of their products, including post-consumer waste management. Engaging clients to adopt EPR programmes encourages improved resource recovery and recycling, contributing to emissions reductions primarily in Scope 3 by addressing the end-of-life phase of products and reducing the need for virgin materials. | Circular value recovery |
| Encourage clients to develop and deploy information and communication technology (ICT) for predictive maintenance and repair to extend the life of products. | Deploying ICT for predictive maintenance and repair minimises product downtime, prolonging their lifespan and reducing the frequency of replacements. This impacts Scope 3 emissions by lowering the overall resource consumption and GHG emissions associated with manufacturing and disposal processes. | Circular support |
| **Products and services offering** | | |
| Tailor interest rates based on the degree of circularity in material sourcing strategies, encouraging clients to adopt eco-friendly practices with a lower carbon footprint. | Financial incentives encourage businesses to prioritise the use of reused, recycled or eco-friendly materials, which typically have lower carbon footprints compared to virgin materials. Tying interest rates to the degree of circularity incentivises clients to prioritise less emissions-intense options and build more circular supply chains. This primarily impacts Scope 3 emissions by reducing the need for new raw material extraction and processing, thus lowering upstream emissions. | Across value chain |
| Include circularity criteria in financial products linked to sustainability goals (for example, sustainability-linked loans, sustainability-linked bonds or green bonds), supporting companies focusing on circular design and production and emissions reduction. | Offering tailored financing mechanisms for companies to support the adoption of circular design and production methods can optimise material use, extend product life cycles, and facilitate easier reuse and recycling. It also accelerates the shift towards manufacturing with reduced energy use, lower material waste and minimised reliance on virgin resources. This collectively decreases the carbon footprint of production processes, primarily impacting Scope 2 emissions by reducing energy consumption and Scope 3 emissions by lowering material waste and the need for virgin resources. | Circular design and production |

| Actions by banks to integrate circular solutions into climate transition plans (cank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| Provide financial support for the establishment of reverse logistics and take-back programs to ensure the responsible disposal and recycling of products in sectors with significant end-of-life waste. This could include funding collection points, transportation and recycling facilities. | Supporting the establishment of reverse logistics and take-back programmes facilitates the responsible disposal and recycling of products, reducing the environmental impact of end-of-life waste. By funding collection points, transportation and recycling facilities and thereby retrieving valuable materials, banks enable businesses to close the loop on product life cycles, contributing to emissions reduction. This impacts Scope 3 emissions by ensuring that valuable materials are retrieved and reused, reducing the need for new materials and the emissions associated with traditional waste disposal methods such as landfilling or incineration. | Circular use |
| Develop financial products and preferential pricing terms for businesses adopting circular business models that emphasise resource recovery and regeneration. This includes the adoption of innovative technologies such as advanced recycling technologies as well as regenerative agricultural practices. | By providing financial incentives, banks encourage the adoption of practices promoting resource recovery and regeneration, thereby lowering emissions linked to the extraction of new materials and waste management. This primarily affects Scope 3 emissions, as it reduces the demand for new raw materials and decreases emissions from end-of-life treatment and disposal. As a result, lower emissions are expected across the entire value chain, including those from suppliers and downstream activities, which in many cases, contribute to a significant portion of overall emissions. | Circular value recovery |

## 3.3 Portfolio composition and financial flows

To align their portfolio composition and financial flows with the Paris Agreement, banks are encouraged to finance more circular activities, projects and clients with a positive impact on GHG emissions, while also considering any potential negative impacts on other impact areas and topics. Banks need to decrease their financing of activities that do not contribute to reducing GHG emissions. As for non-circular activities with no circular opportunities, banks need not reduce their exposure if these activities have a proven positive impact on GHG emissions (or any other impact area).Table 8 includes examples of priority actions for portfolio composition and financial flows (non-exhaustive):

**Table 8:** Integrating circularity in **portfolio composition and financial flows** to achieve climate mitigation targets—sector agnostic actions for banks.

| Actions by banks to integrate circular solutions into climate transition plans (bank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| **Increasing circular financing with positive impact** | | |
| Increase financing of activities substantially contributing to the circular economy as well as activities with circular opportunities. Progressively expand the portfolio and sectors screened positively against circularity criteria, ensuring that the portfolio and sectors covered do not only include downstream activities but also upstream activities.<br>For example:<br>▪ Increase investment in reverse logistics, take-back programmes, collection points and recycling infra-structure, ensuring responsible product disposal and recycling of products, particularly in sectors with significant end-of-life waste.<br>▪ Increase financing to support circular business models that encourage resource recovery and regen-erative practices through innovative technologies, such as advanced recycling and regenerative agricul-tural practices. | Increasing financing for activities that contribute to the circular economy is expected to have a significant positive impact on reducing GHG emissions, by optimising resource use, lowering energy consumption (Scope 1 and 2), and minimising waste and emissions throughout product life cycles (Scope 3). It also encourages the adoption of technologies and processes that extend product life, enhance recycling and reuse practices, and reduce the overall environmental footprint associated with production and consumption across various industries. | Across value chain |
| **Decreasing financing in absence of positive impact** | | |
| Phase out financing for projects that lack circularity potential, for example comprehensive end-of-life plans or strategies for material recovery and reuse, and without GHG emissions reduction potential. | Projects without proper end-of-life planning contribute to increased waste and inefficient resource utilisation, hindering circularity. This inefficiency impacts emissions across all Scopes of a company, notably Scope 3 emissions, as they encompass the entire value chain from raw material extraction to disposal. | Across value chain |

## 3.4 Advocacy and partnerships

Banks are encouraged to collaborate with other financial institutions, including development banks, policymakers and other stakeholders, to exchange knowledge on circular economy and its contribution to climate mitigation (as well as other impact areas and topics), to foster circular transition finance and to advocate for incorporating circular economy into relevant policies and regulations. This is instrumental to creating the enabling environment for shifting consumption and production patterns towards increased circularity. Table 9 includes examples of priority actions for advocacy and partnerships (non-exhaustive):

**Table 9:** Integrating circularity in **advocacy and partnerships** to achieve climate mitigation targets—sector agnostic actions for banks.

| Actions by banks to integrate circular solutions into climate transition plans (bank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| **Engaging with policymakers** | | |
| Engage with relevant policymakers and government representatives at national, regional and international level on the topic of circular economy and its contribution to climate mitigation (for example, to favour the use of taxonomies for scaling transition finance and circular finance). | Active engagement on the topic of circular economy and its contribution to climate mitigation can help enact supportive policies, regulations, and incentives that accelerate the adoption of circular economy practices, which is a prerequisite for reducing GHG emissions. | Across value chain |
| **Partnering with other financial institutions, including development financial institutions** | | |
| Collaborate with other banks and international financial institutions, such as multilateral development banks or development financial institutions, to access de-risking instruments (for example, blended finance) for financing circular activities, projects and clients. | By leveraging de-risking instruments from international financial institutions, banks can facilitate greater investment in circular initiatives with high potential for emission reduction. This also creates more accessible financing options for small and medium-sized enterprises (SMEs)—an important player in the transition to a circular, low-carbon future, by helping them overcome initial financial barriers for implementing practices with lower carbon footprints (for example, investing in recycling technologies or adopting renewable materials). | Across value chain |

| Actions by banks to integrate circular solutions into climate transition plans (bank level) | Impact of these actions on GHG emissions (client level) | Circular business model category |
|---|---|---|
| **Engaging with industry initiatives, civil society and academia** | | |
| Participate in industry initiatives that share knowledge, set industry standards and develop collective strategies to increase circularity and enhance its contribution to GHG emissions reduction. | By working closely with businesses and industry groups, banks can accelerate the transition to a more circular economy and promote the widespread adoption of best practices and innovative technologies that reduce emissions, while facilitating knowledge sharing, standard setting and the development of scalable solutions that enhance the circular economy's impact on GHG reduction. This is expected to indirectly drive emission reductions of companies across all scopes. | Across value chain |
| Engage with NGOs and academic institutions to leverage their research and expertise in developing innovative circular economy practices, facilitating knowledge exchange and advancing joint strategies for reducing GHG emissions and better measuring them across all scopes. | By collaborating with NGOs and academia, banks can leverage expert insights and innovative research to promote circular economy practices. This collaboration facilitates the sharing of best practice, development of new standards, and creation of scalable solutions. Such partnerships enhance the circular economy's contribution to GHG emissions reduction by driving the adoption of cutting-edge technologies and methods across industries, indirectly reducing emissions across all scopes. | Across value chain |

# 4. Next steps

This report offers initial approaches for banks to transition from setting climate mitigation targets to implementing actionable strategies to achieve these targets by embedding circularity-related considerations into their business engagement with clients. By leveraging the nexus between the circular economy and climate, banks can drive meaningful impact and accelerate progress towards sustainability goals with their clients.

As banks navigate the transition towards integrating circularity in their businesses to achieve climate targets, they must acknowledge the evolving landscape of GHG accounting, transition finance, regulatory frameworks and challenges related to data availability and reliability, particularly on circularity metrics. While this space is still nascent, regulation and policy are evolving rapidly, requiring banks to remain vigilant and initiate crucial first steps by leveraging existing tools, methodologies and frameworks and adapting their strategies accordingly. The resources outlined in this guidance provide a foundational basis for integrating circular economy principles into banking practices.

Banks should also ensure they develop robust data collection and analysis mechanisms for informed decision-making and addressing the risk of greenwashing by ensuring transparency and accountability in reporting practices.

As banks embark on their transformative journey, embracing circular economy principles not only aligns with climate targets but also fosters innovation, resilience and inclusive economies. By adopting a proactive stance and integrating circularity into their core practices, banks can catalyse positive change and contribute to a more sustainable future.

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UN environment programme

finance initiative

UNEP Finance Initiative brings together a large network of banks, insurers and investors that collectively catalyses action across the financial system to deliver more sustainable global economies. For more than 30 years the initiative has been connecting the UN with financial institutions from around the world to shape the sustainable finance agenda. It has established the world's foremost sustainability frameworks that help the finance industry address global environmental, social and governance (ESG) challenges. Convened by a Geneva, Switzerland-based secretariat, more than 500 banks and insurers with assets exceeding US$100 trillion work together to facilitate the implementation of UNEP FI's Principles for Responsible Banking and Principles for Sustainable Insurance. Financial institutions work with UNEP FI on a voluntary basis and the initiative helps them to apply the industry frameworks and develop practical guidance and tools to position their businesses for the transition to a sustainable and inclusive economy.

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