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Global Alliance on
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Resource Efficiency

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Unlocking Circular Economy Financing

From Vision to Action

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Abbrevs & Acronyms

ACEA	African Circular Economy Alliance
ACEF	Africa Circular Economy Facility
ASEAN	Association of Southeast Asian Nations
DFC	US International Development Finance Corporation
DNSH	Do not significantly harm
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
EIB	European Investment Bank
EPR	Extended producer responsibility
EPRON	E-waste Producer Responsibility Organization of Nigeria
GACERE	Global Alliance on Circular Economy and Resource Efficiency
GDP	Gross domestic product
GHG	Greenhouse gases
GIZ	German Corporation for International Cooperation
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
MDB	Multilateral development bank
MEA	Multilateral environmental agreement
MSME	Micro, small and medium enterprise
NGFS	Network for Greening the Financial System
OECD	Organisation for Economic Co-operation and Development
PaaS	Product as a service
PET	Polyethylene terephthalate
PFAS	Per- and polyfluoroalkyl substances
PPU	Pay per use
rPET	Recycled polyethylene terephthalate
SME	Small and medium-sized enterprise

TNFD	Taskforce on Nature-Related Financial Disclosures
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme Finance Initiative
WB	World Bank
WBCSD	World Business Council for Sustainable Development
WCEF	World Circular Economy Forum

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Executive summary

The transition to a circular economy requires a significant scale up of financing to support new circular business models. While momentum is growing, financing remains insufficient due to market uncertainty, investment risks, lack of shared principles, and metrics, data gaps and policies that are either lacking or misaligned with circular objectives.

This paper suggests a structured approach to unlocking circular economy financing by focusing on two pillars and four action areas. The proposed pillars and priority action areas were informed by the outcome of the World Circular Economy Forum 2024 workshop ‘Advancing finance policy to close the circularity gap’ co-organized by UNEP FI, the Government of the Netherlands and Circle Economy, and complemented by reviewing the existing literature, and through discussion with representatives from multilateral development banks, private financial institutions, civil society and academia. The proposed pillars and action areas are interdependent and mutually reinforcing, and do not imply a hierarchy or sequence of actions.

Pillar 1: Making circular economics work

Key message: Circular economy activities must be economically sound and financially viable to attract public and private capital

Action area 1.1

Create and nurture a market for circular products and services

Strong and predictable demand for circular products and services helps create the economic stability that investors need. It ensures predictable cash flows, reduces market and financial risks (by increasing demand, driving economies of scale, stabilizing the supply chain, and decreasing transaction costs). Declining production costs (through improved efficiency, better technologies and increased supply of secondary materials), help to ensure reasonable returns.

Action area 1.2

Enhance risk-adjusted return for circular products and services

To attract private capital, return on investments needs to be secured in line with the risks associated with funding circular business models. This requires addressing circular transition risks while also recognizing circularity’s long-term financial benefits and indirect returns—such as environmental benefits from improved resource efficiency. Higher upfront costs and longer payback periods require public-led mechanisms to lower, or share, risks and enhance returns.

Pillar 2: Evidencing the circular economy value proposition

Key message: The business case for circular economy must be strengthened and documented through evidence-based analysis to attract public and private capital

Action area 2.1

Align public and private actors on circularity principles

Creating a shared understanding of circularity principles helps capital providers build trust and credibility, enabling them to confidently integrate circular economy considerations into investment decisions and financing criteria.

Action area 2.2

Collect and use science-based data and metrics

Collecting and using science-based data on circularity helps assess the adoption of circular policies and business practices and measure their impact on a full life cycle basis on the environment, economy and society. This enhanced transparency enables more informed decisions, reduces uncertainty, lowers operational and compliance risks, and improves predictability and comparability, making the investment environment more attractive.

Unlocking circular economy financing requires integrated collaboration between public and private actors.

Governments, at regional, national, and subnational authorities' levels, can play a central role in creating the market for circular products and services and the supportive policy environment, in line with the vision of supporting economic resilience and social well-being. Financial regulators and central banks can play an important role to develop and implement financial regulations, transparency, risk management and supervision, and prudential treatment, in line with the objective of ensuring financial stability, managing systemic risks and guiding sustainable capital flows to ensure economic resilience.

Public financial institutions, including multilateral development banks and other development financial institutions, can provide funding, deploy de-risking instruments to mobilize private investments, and offer technical assistance and capacity building support, to actively encourage the financing of sustainable development and promote economic stability. Private financial institutions can help scale circular economy financing by actively engaging with clients to support circular business models adoption, by incorporating circular considerations into risk and return analysis and financing decisions, and by implementing innovative financial products tailored to circular business products and services.

The table below sets out suggested complementary actions that public and private actors can take.

Pillar 1: Making circular economics work	
Action Area 1.1: Create and nurture a market for circular products and services	
Governments	Financial regulators and central banks
▪ Set fiscal and financial incentives for a circular economy ▪ Leverage public procurement policies ▪ Implement extended producer responsibility at scale	N/A
Public financial institutions	Private financial institutions
▪ Provide technical assistance and financial incentives to create and nurture markets for circular products and services	▪ Engage with clients to increase circular business model adoption ▪ Design and offer innovative financing instruments
Action Area 1.2: Enhance risk-adjusted return for circular products and services	
Governments	Financial regulators and central banks
▪ Move to full-cost pricing of externalities in market signals ▪ Provide financial support to circular initiatives	N/A
Public financial institutions	Private financial institutions
▪ Deploy financial mechanisms that de-risk and improve the return of circular products and services	▪ Promote the integration of circularity principles in financial decisions

Pillar 2: Evidencing the circular economy value proposition

Action Area 2.1: Align public and private actors on circularity principles

Governments	Financial regulators and central banks
Lead on alignment and advocacy efforts on circularity principles	Encourage private and public financial institutions to align with shared global circular economy principles
Public financial institutions	Private financial institutions
Contribute to government-led efforts on the alignment of, and advocacy for, circularity principles	Contribute to government-led efforts on the alignment of circularity principles

Action Area 2.2: Collect and use science-based data and metrics

Governments	Financial regulators and central banks
- Fund research to measure the environmental and socioeconomic impacts of circular policies and business practices - Fund public research on material flows and cycling of materials and resources back into the economy through secondary markets - Encourage circular economy and natural-resource-related data gathering by businesses	- Encourage private and public finance institutions to gather circular economy and natural-resource-related data - Strengthen natural resources depletion risk considerations in existing environmental risk assessments
Public financial institutions	Private financial institutions
Collect impact data through pilot projects on circular economy policies and business practices	Incorporate circular considerations into risk and return analysis

Introduction

Governments made a call for collective action to scale up financing for the transition to more circular economies at the Global Alliance on Circular Economy and Resource Efficiency (GACERE) event '[Leveraging effective and inclusive collaboration with financial institutions to accelerate the transition to more circular economies](#)', held alongside the sixth session of the United Nations Environment Assembly.¹

This call was reiterated at the World Circular Economy Forum 2024 workshop '[Advancing finance policy to close the circularity gap](#)'^{i,2} co-organized by UNEP FI, the Government of the Netherlands and Circle Economy. The workshop underscored the need for coordinated financial strategies and action by public and private actors to accelerate the transition to a circular economy.

Accordingly, the United Nations Environment Programme Finance Initiative (UNEP FI) and GACERE, in consultation with a range of public and private stakeholders, have developed this paper as an action guide. It aims to unlock circular economy financing through enhanced collaboration between private and public stakeholders—governments, financial regulators and central banks, public financial institutions and private financial institutions.

The urgent need for growth in circular financing

Since 2019, an estimated USD 350 billion has been dedicated to financing the circular economy, with significant growth across various asset classes. The total value of public equity funds grew from USD 0.3 billion to USD 6.6 billion between 2019 and 2023, and the number of sovereign bonds increased more than 13 fold, with a cumulative issuance of USD 93 billion.^{ii,3}

However, circular economy financing still represents only a fraction of sustainable finance. The value of sustainable investment products (including bonds and funds) exceeded USD 7 trillion in 2023, marking a 20% increase from 2022.⁴ Furthermore, in 2022 alone, total fossil fuel subsidies were approximately USD 7 trillion, which is equivalent to 7.1% of global gross domestic product (GDP).⁵

Despite this growth, a major funding gap persists. Although 75 national circular economy roadmaps and strategies have been introduced since 1999 (71 of these since 2016), few

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- i The workshop 'Advancing finance policy to close the circularity gap' was attended by representatives from governments, public and private financial institutions, international organizations, civil society and academia. The roundtable discussions focused on four main topics: 'Making the economics work: the imperative to enhance risk adjusted returns', 'Data: implementing the right balance between harmonisation and adapting to the national context', 'How can we embed circular economy in the broader sustainability framework?', and 'Just Transition: Ensuring the right mix of policies and finance to mitigate trade-offs between social and environmental objectives'.
- ii Based on data collected by the Ellen MacArthur Foundation in 2024.

strategies allocate a budget, and even fewer secure sufficient financing to meet their objectives.⁶

This funding shortfall highlights the need to mobilize substantial capital to unlock the multi-trillion-dollar market opportunity of circularity, which remains largely untapped.⁷ Achieving this potential will require a substantial increase in financing, particularly in key areas such as infrastructure, innovation and support for small and medium-sized enterprises (SMEs), all of which are essential for scaling circular solutions.

The challenge of escalating resource extraction

Meanwhile, resources extraction continues to escalate. The Global Resources Outlook 2024 projects a 60% increase in natural resources extraction by 2060.⁸ However, investment is not being directed to activities where the potential impact on natural resources use is highest, such as scaling up innovative solutions. This further strains supply chains and amplifies risks such as price volatility and stranded assets.

The long-term economic viability of many industries is at risk, underscoring the urgent need for circular financing to support business models that enhance resource efficiency, reduce dependency on raw materials, create resilient low-waste supply chains and establish sustainable and competitive economies.

The need for action

To capture the risk mitigation potential of the circular economy, governments and financial institutions need to recognize the significance of natural resource risks and redirect capital to address them. This requires treating circularity as a strategic response to resource constraints and advancing conducive regulatory reforms, such as correcting price distortions to create a level playing field where secondary materials and circular models can compete on equal terms (pillar 1).

At the same time, it is essential to gather evidence on how circular economy solutions can enhance industrial competitiveness while mitigating negative impacts on climate, biodiversity and pollution—for example by lowering dependency on raw materials, improving cost-efficiency, strengthening supply chain resilience and enabling innovation-driven growth—all of which are key data gaps today (pillar 2).

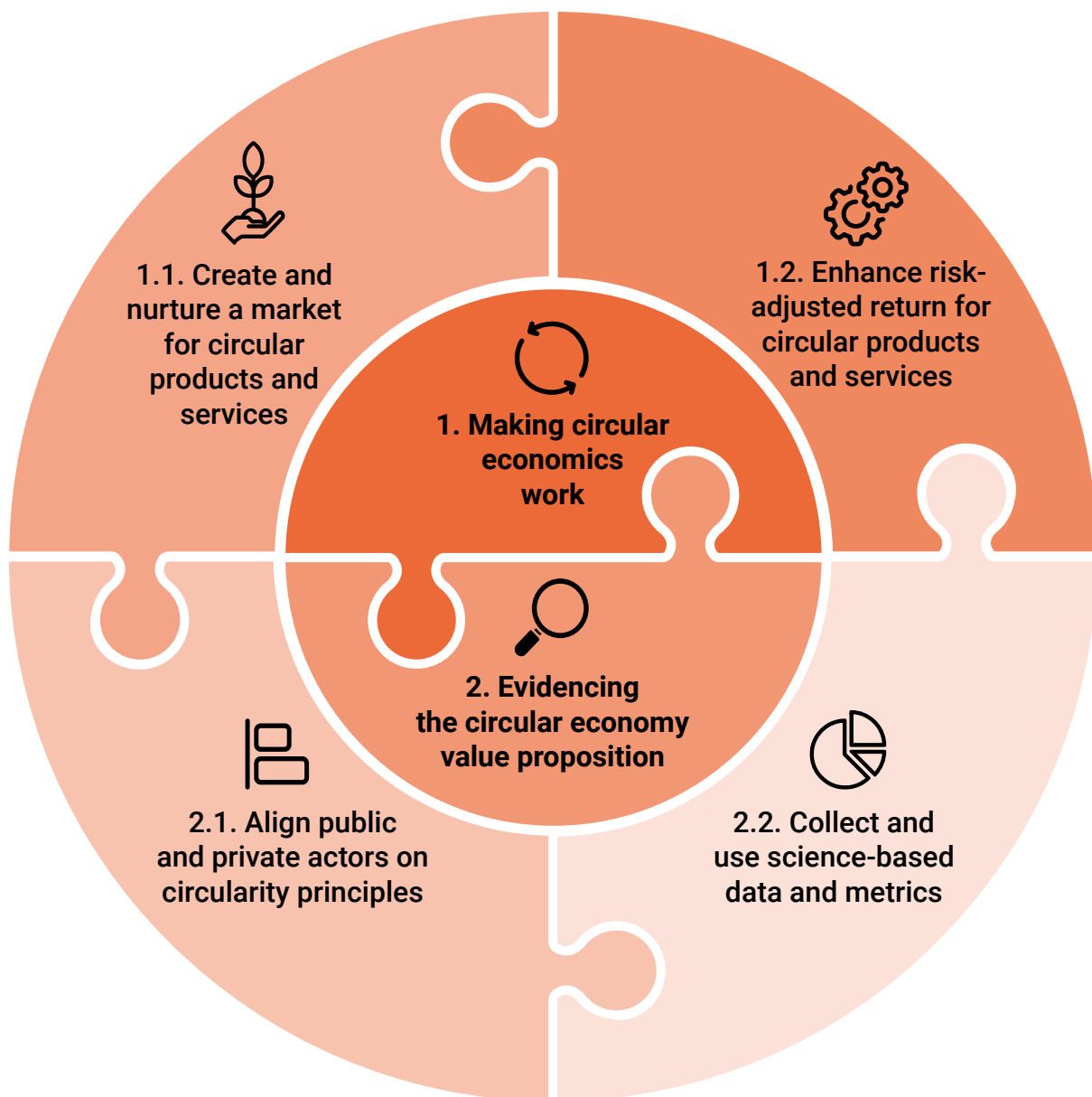
About this paper

This paper acknowledges the substantial progress made in advancing circular economy transitions through policy efforts, academia and real-world practice by all stakeholders. Considerable groundwork has been laid, with numerous initiatives highlighting the economic, environmental and social benefits of a circular economy. Various frameworks and policies are already in place, paving the way for the broader adoption of circular practices.

Building on this work, the paper offers a structured overview of two possible pillars and four possible strategic priority action areas relevant to governments, financial regulators and central banks, and public and private financial institutions. Examples of progress made and efforts underway are highlighted in the hope they may be a source of inspiration.

Coordinated action between public and private actors is essential to addressing policy gaps, de-risking investments and creating conditions for scaling circular finance globally.

How to accelerate and scale up circular economy financing— action areas for public and private actors



Pillar 1: Making circular economics work



Key message: Circular economy activities must be economically sound and financially viable to attract public and private capital

This requires a strong and predictable market for circular products and services, supported by conducive policies and public financial mechanisms. Decreasing circular-related risks and increasing returns on circular projects helps to provide the certainty and compensation private financial institutions need to justify the risk taken when financing circular products and services.

Action Area 1.1: Create and nurture a market for circular products and services



1.1 Create and nurture a market for circular products and services

1.2 Enhance risk-adjusted return for circular products and services

A strong and predictable demand for circular products and services helps to provide the economic stability that investors need for ensuring predictable cash flows, lowering market and financial risk and providing reasonable returns. The combined role of public, private and individuals' demand is central to shaping the market for circular products and services, providing behavioural signals that public policies and finance mechanisms can amplify and support. A strong demand enhances market liquidity by generating predictable revenue streams and increases the resilience of supply chains by reducing reliance

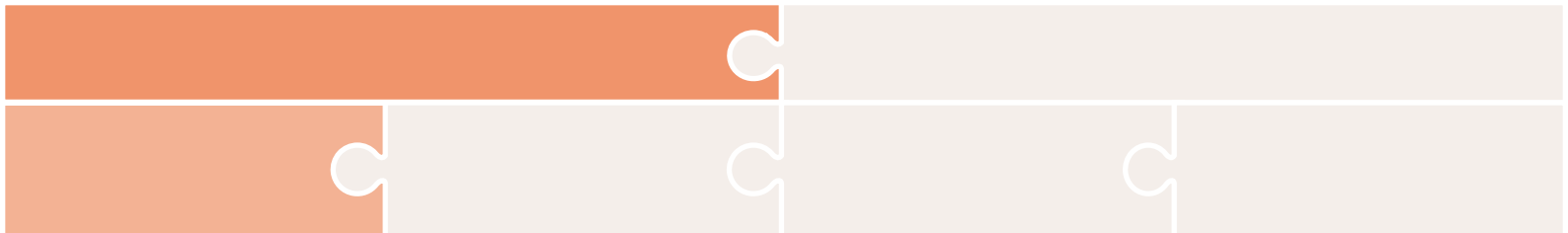
on volatile raw material markets and promoting localized production.⁹ Increased demand lowers transaction costs by standardizing processes, improving economies of scale, and increasing market transparency. Additionally, production costs decline due to efficiency improvements, better technologies and an increased supply of secondary materials.⁹

While this paper focuses on possible action areas by four types of public and private actors, it is worth noting that academia and innovation centres can play a catalytic role in strengthening the foundations of circular markets by:

- advancing applied research to design and evaluate innovative circular business models or technologies
- developing technological surveillance services in circular economy or technological scaling of circular solutions
- fostering collaboration between government, industry, and local ecosystems

For example, CircularTec,¹⁰ based in Chile, is Latin America's first technology centre dedicated to circular economy. The organization exemplifies how multi-stakeholder collaboration can drive innovation, build local capacity and help grow viable circular markets.

Action Area 1.1: Create and nurture a market for circular products and services	
Governments	Financial regulators and central banks
▪ Set fiscal and financial incentives for a circular economy ▪ Leverage public procurement policies ▪ Implement extended producer responsibility at scale	N/A
Public financial institutions	Private financial institutions
▪ Provide technical assistance and financial incentives to create and nurture markets for circular products and services	▪ Engage with clients to increase circular business model adoption ▪ Design and offer innovative financing instruments



Governments

Set fiscal and financial incentives for a circular economy

Fiscal policies can help overcome a key entry barrier for circular products and services and boost demand for circular solutions. Circular products and services are often more expensive, or require higher upfront investments than conventional ones. Currently they cannot compete with conventional alternatives, as most consumers continue to prioritize price when making purchase decisions. Businesses offering repaired or refurbished products also struggle to compete with newly manufactured products on price, with labour costs rendering their potential margins too slim.¹¹

Special tax provisions such as subsidies, grants, tax credits, tax deductions and exemptions are used to overcome such barriers. Fiscal incentives can also be provided to public procurement agencies.¹² Tax benefits, shifting taxes from labour to resources, and subsidies lower the upfront costs of circular business models, making them more attractive to businesses and consumers.¹³ Phasing out environmentally harmful subsidies—such as those supporting fossil fuels, overfishing or unsustainable agricultural practices—is equally critical to level the playing field and ensure that fiscal policies consistently support sustainable and circular outcomes.

Thailand's tax incentive for biodegradable plastics

Between 2019 and 2021, the Thai government offered a two-year tax incentive for businesses utilizing biodegradable plastics instead of fossil-fuel-based plastics. Additionally, a tax deduction of 1.25 times the amount spent on purchasing biodegradable packaging was available for buyers of local bioplastics, with this deduction extended from 2022 to 2024.¹⁴ From 2018 to 2023, the Thailand Board of Investment, a government agency that promotes investments from the private sector, approved more than 24 bioplastic projects, amounting to approximately USD 1 billion in total investment.¹⁵

Sweden's tax shift from labour to resources

In 2017, Sweden lowered the value-added tax on repair services for products such as bicycles, clothing, and shoes from 25% to 12% to encourage consumers to repair, rather than discard items. Additionally, individuals can receive tax deductions of up to 50% on labour costs for appliance repairs (e.g. washing machines, refrigerators), making repair services more affordable compared to buying new products.

The policy led to a noticeable increase in demand for repair services. According to a study by Lund University in 2020, 16 out of 22 repair businesses—particularly in sectors such as bicycles and IT—reported growth following the introduction of the incentive, highlighting sector-specific responsiveness. The findings also point to the need for improved information dissemination to fully leverage the policy's potential. By boosting demand for repairs, the policy has helped support local employment and encouraged manufacturers to design products with greater repairability in mind.

Leverage public procurement policies

Public procurement wields enormous purchasing power, accounting for an average of 12% of gross domestic product (GDP) in countries of the Organisation for Economic Co-operation and Development (OECD), and up to 30% of GDP in many developing countries.¹⁷ Long-term contracts and predictable cash flows make public procurement a powerful driver of demand for circular products and services.¹⁸ By procuring more circular products, materials and services, promoting innovative and resource-efficient business models, strengthening procurement enablers such as life cycle costing, and adapting consumer information tools, governments send a strong market signal to scale up a stable market for circular products and services.

To be an effective driver of circular markets, public procurement should build on realistic, clear, transparent and measurable targets to ensure that circularity is embedded in all stages of the procurement phases. As circularity can be interpreted in different ways, it is important to set clear expectations that translate ambition into consistent purchasing decisions.^{12,18}

Finland's circular economy roadmap integrates circular economy principles into public procurement

Finland encourages the purchase of products and services that minimize natural resource consumption, maximize reuse and reduce waste. The country has applied these principles across various sectors, including electronics as part of the requirements under the EU directive on Waste of Electrical and Electronic Equipment,¹⁹ but also to sectors such as construction and office supplies. The initiative has supported the development of circular supply chains. One of the successes is the establishment of the Finnish 'take-back system' for consumer electronics, which incentivizes manufacturers to take responsibility for the full life cycle of their products.²⁰

Implement extended producer responsibility at scale

Extended producer responsibility (EPR) systems make producers responsible for the entire life cycle of their products, from design to end-of-life management, including waste collection and recycling. Mandatory take-back and recycling schemes and credit trading systems incentivize producers to reduce waste and improve product design by allowing them to trade credits for exceeding recycling targets.²¹ Shifting waste management costs to the producers encourages manufacturers to redesign products for durability, reusability and recyclability and drives market demand for circular solutions.²²

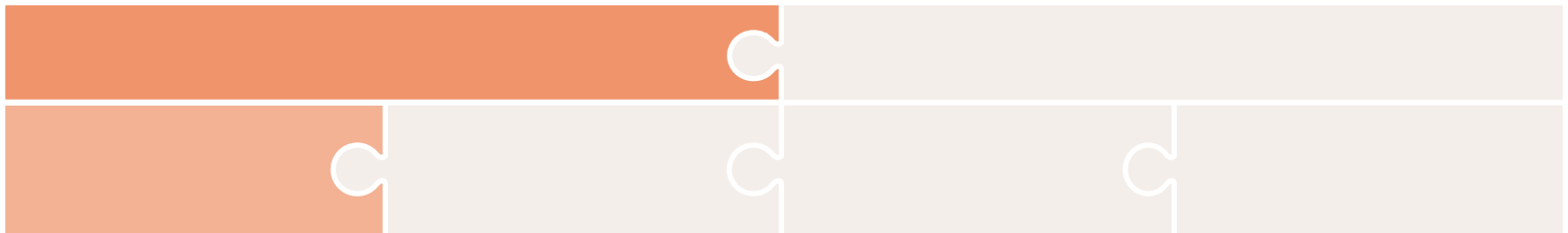
France's Citeo reuse initiative

This French programme promoting reusable packaging systems demonstrates how EPR schemes can be leveraged not only for recycling, but also to prevent waste generation through upstream solutions such as reuse, repair and eco-design. The producer responsibility organization (PRO) Citeo collects fees from companies placing packaging and paper products on the market, with fees modulated based on the environmental impact and recyclability of the packaging. These EPR funds are increasingly used to support upstream circular strategies, including the development of reusable and refillable packaging systems, eco-design incentives, and repair subsidies. For example, eco-modulated EPR fees are used to help fund a 'repair bonus', which reimburses consumers a portion of repair costs to extend product lifespans and reduce waste at source.^{23,24}

Nigeria's circular e-waste system through extended producer responsibility

Nigeria faces a growing e-waste challenge, with more than 500,000 tonnes of discarded electronics processed annually, often under unsafe and informal conditions. To address the health and environmental risks, Nigeria is implementing a project to stimulate a circular economy through extended producer responsibility, supported by international collaboration.

With support from the Global Environment Facility (GEF), United Nations Environment Programme (UNEP) and other partners, Nigeria is tackling e-waste through the project 'Circular Economy Approach for the Electronic Sector in Nigeria'. The initiative, led by UNEP and supported by the National Environmental Standards and Regulations Enforcement Agency of Nigeria (NESREA) includes USD 15 million in funding. It brings together government, private sector and civil society to design and implement a financially self-sustaining circular economy for electronics. As part of the project, multinational electronics producers—including Dell, Microsoft Mobile, and Philips—participated in stakeholder consultations that helped shape Nigeria's EPR framework and led to the establishment of EPRON in 2018, the country's first producer responsibility organization dedicated to managing electronic waste. The project aims to enhance formal material recovery systems, foster public-private collaboration, and contribute to the creation of jobs in e-waste management and recycling.^{25,26}



Chile's EPR Law

Chile's Law No. 20.920, adopted in 2016, mandates that producers of six priority products (lubricating oils, electrical and electronic devices, batteries, packaging materials, tires and accumulators) are responsible for the entire life cycle of their products. The law emphasizes principles such as the polluter pays principle, gradual implementation of obligations, and the inclusion of informal waste collectors into formal systems. Chile's implementation of EPR policies and its Circular Economy Roadmap have led to measurable increases in circular economy activities. For instance, the Chilean Plastics Pact has established targets for incorporating recycled materials into products, such as aiming for single-use plastic bottles to contain 25% recycled content by 2025 and 50% by 2030. Additionally, manufacturers in sectors such as mining, construction, agriculture and fishing are encouraged to use 20% recycled plastic in their production processes by 2024, up from a baseline of 7% in 2019.²⁷

Public financial institutions

Provide technical assistance and financial incentives to create and nurture markets for circular products and services

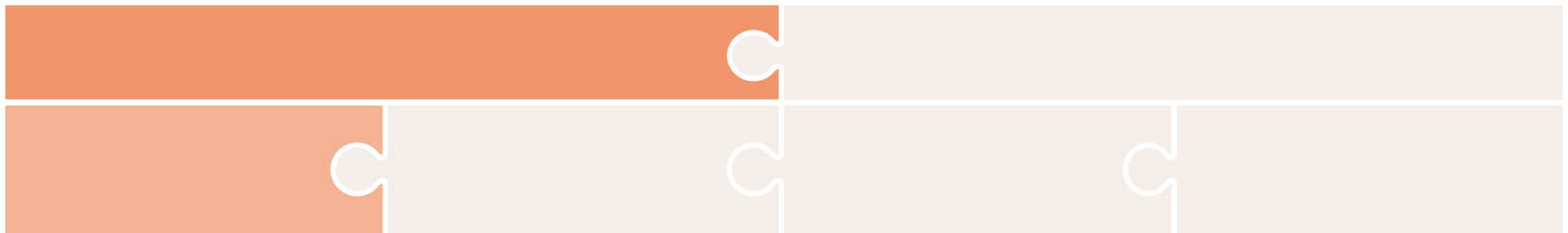
Public financial institutions, including multilateral development banks (MDBs), can provide technical assistance, advisory services and capacity-building programmes to governments and the private sector.²⁸ MDBs can tap into their cross-sectoral expertise to build capacity among businesses and financial institutions, support innovative circular business models, such as pay-per-use and product-as-a-service, and provide assistance with project preparation, financial structuring, due diligence and impact assessment.²⁹

This support enhances the investment readiness of circular projects and makes circular investments more accessible, particularly for SMEs and low- and middle-income countries, generating a pipeline of bankable, investable circular projects. It enables tailored solutions that align with regional priorities, depending on local context and key sectors, such as plastics reuse infrastructure, regenerative agriculture and food system redesign, transformation of fashion business models and supply chains and securing critical raw materials for energy transitions. This assistance also helps to develop adaptable models suited to the international, national and regional contexts (for example, how circular economy financing operates from an Islamic bank perspective).

Public financial institutions can also offer the private sector performance-based incentives, subject to achieving predefined circular-based impacts on the environment, economy and society. This motivates behavioral change and helps create and develop a market for circular products and services.

African Development Bank AfriCircular Innovators Programme

In 2024, the AfDB's AfriCircular Innovators Programme³⁰ selected 30 small and medium-sized enterprises (SMEs) to receive assistance aimed at scaling up circular economy solutions. Among these beneficiaries are enterprises engaged in transforming plastic waste into durable construction blocks, reimagining the construction industry using coconut husks, developing smart energy metering solutions, and digitizing the collection and processing of e-waste. These initiatives contribute to reducing environmental impact and promoting resource efficiency across various sectors. Given that micro, small, and medium enterprises represent 80% of Africa's businesses, and circular economy business models have the potential to generate 11 million jobs across the continent, the programme aligns strategically with broader economic and employment objectives.³¹



Türkiye Materials Marketplace

The European Bank for Reconstruction and Development (EBRD) and the Business Council for Sustainable Development created the Türkiye Materials Marketplace to enable companies to exchange underused materials—turning one company’s waste into another’s raw material. In 2020, it evolved into the Turkey Circular Economy Platform, a space dedicated to building capacity and raising awareness of the country’s circular economy.³² The platform features a knowledge hub, circularity measurement tools, training, financial resources and consultancy services to help companies accelerate their transition to a circular economy.³³ To date, 77,000 tonnes of materials have been recovered.

Inter-American Development Bank (IDB) and IDB Lab Blue Tech for Waste challenge in the Caribbean

This initiative tackles the technical and financial barriers to reducing hazardous chemicals and waste. It aims to improve resource efficiency and promote the safe handling of hazardous materials across 10 target countries and 9 priority waste streams. The challenge received 50 proposals, and selected 6 for implementation in countries including Barbados, Haiti, Jamaica, the Dominican Republic, and Trinidad and Tobago. These projects encompass a range of innovative approaches, such as lithium battery reuse, green solvents for plastic packaging, ultra-efficient biomass combustion, waste-to-cement conversion, end-of-life tire recycling, and initiatives to close the loop in product life cycles.³⁴ The project encourages collaboration among start-ups, small businesses, corporations and NGOs to drive innovation and unlock new investments.

Private financial institutions

Engage with clients to increase circular business models adoption

By actively engaging with and supporting their large corporate and SME clients—especially in key sectors with high impact and high circularity potential such as construction, metals and mining, agriculture, automotive, electronics and textiles—private financial institutions can assess clients’ adoption of circular practices, identify possible ways to integrate more circularity in clients’ business models and help unlock new business opportunities.³⁵ Financial institutions can establish dedicated circular economy advisory teams to support client-facing teams, and also invest in internal training and awareness. Building a deep understanding of circular business models is critical to effectively supporting clients and scaling their adoption.

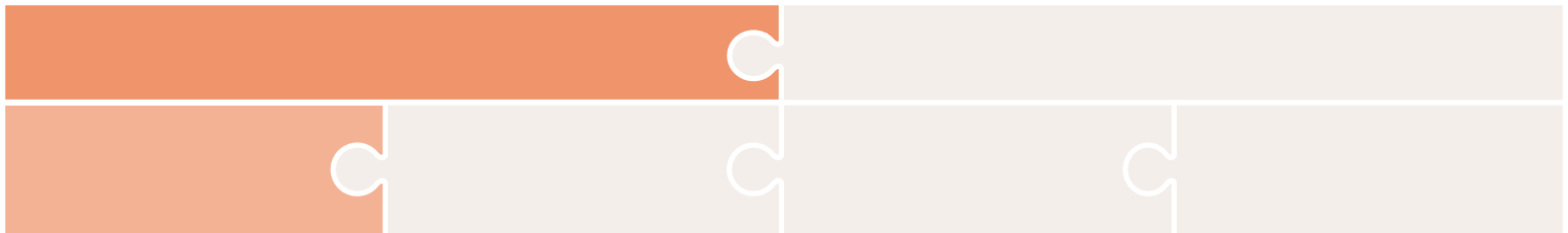
Grupo Bancolombia Smart Capital and Upgrade portals

Bancolombia actively engages with its clients by providing guidance on circular practices through its Smart Capital and Upgrade portals,³⁶ and through the Circular Diagnosis tool,³⁷ which helps SMEs and corporate clients assess their circularity. In 2023 the bank supported 400 projects totalling 540 million Colombian pesos through a sustainable credit line for circular economy.³⁸ The credit line offers a reduced interest rate and a grace period of up to two years. Projects must meet circular eligibility criteria and quantify their environmental benefits—such as waste recycled or avoided, water recirculated or supplied from alternative sources and reduced consumption. Projects financed under the sustainable credit line for circular economy resulted in more than 145,000 tons of waste avoided.

Intesa Sanpaolo’s circular economy credit facility

As part of its 2022–2025 business plan, Intesa Sanpaolo committed EUR 8 billion in dedicated credit facilities to support businesses implementing innovative circular economy and green solutions with circular features, in line with its internal framework. This strategic target built upon the bank’s pioneering efforts under its 2018–2021 plan.

Since 2022, Intesa Sanpaolo has assessed and validated more than 1,100 projects, amounting to approximately EUR 37.5 billion, and has granted EUR 21.5 billion across 660 transactions. Of this amount, EUR 13.1 billion has already been disbursed.³⁹ These projects include both dedicated circular economy initiatives and green projects with circular features. By linking funding to circular performance, the initiative has increased demand for circular business models, making them more financially viable



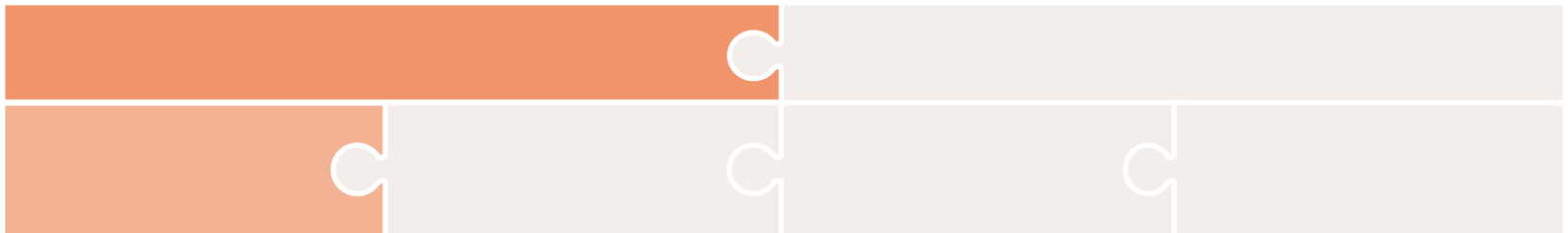
and scalable.⁴⁰ The financed initiatives span a wide range of sectors and circular activities, including the replacement of fossil-based and critical raw materials with recycled or bio-based alternatives; the reuse of urban organic waste for the production of biomethane and compost; the recovery of CO₂ emissions; the extension of the operational life and production capacity of renewable energy plants; and the recovery of industrial waste for integration into new production cycles. Furthermore, according to Intesa Sanpaolo's Green and Social Bond Report 2024, 12.8% of its green bond portfolio is allocated to circular economy projects, contributing to the avoidance of an estimated 2.05 million tons of CO₂e emissions, demonstrating measurable environmental impact alongside financial performance.⁴¹

Design and offer innovative financing instruments

By working closely with businesses, private financial institutions can identify sector-specific needs and develop innovative funding solutions for circular products and services—for example, green loans and sustainability-linked financing with circularity key performance indicators in line with existing sustainable finance taxonomy, if any.

Private financial institutions can also offer loans and bonds linked to circular objectives for businesses that adopt circular practices. They can support circular business models such as pay-per-use (PpU) and product-as-a-service (PaaS) models by structuring and offering usage-based financing or asset-backed lending. They can establish private equity funds dedicated to circularity, and acquire ownership stakes in SMEs that develop innovative circular technologies, providing early-stage capital and support in reaching market readiness.³⁵

They can also explore innovative financial mechanisms such as leveraging patient capital (i.e. long-term funding that tolerates delayed returns) and catalytic capital (i.e. investment that is more risk-tolerant, concessionary or flexible than conventional capital) to unlock greater investment in high impact circular economy businesses and projects that often struggle to secure the capital needed to scale.



Circulate Capital

Launched in 2018, Circulate Capital was created to tackle the ocean plastic crisis in South and Southeast Asia by unlocking capital to build circular supply chains through impact-driven investments. The firm supports both upstream and downstream innovations—investing in novel reusable materials and alternative delivery models with strong potential for technology transfer, as well as scaling high-potential recycling and waste management solutions.⁴² Through this approach, Circulate Capital has actively mobilized circular financing opportunities. For example, Circulate Capital invested in Tridi Oasis, a female-led Indonesian company recycling PET bottles into rPET flakes for packaging and textiles, and helped the firm grow from a local start-up into a key player in Indonesia’s plastics circular transition, with positive impact on female employment.⁴³ Similarly, Circulate Capital and other investors provided USD 5 million in funding to Algenesis Corporation, a U.S.-based materials innovator that developed Soleic®, a plant- and algae-based bio-polyurethane, used as an alternative to petroleum-based plastics in products such as footwear soles. The investment supported the expansion of product lines (e.g. to waterproof textiles and injection molded products) and scaling up production. Soleic® is fully biodegradable, PFAS-free, and reduces GHG emissions from production by 50%.⁴⁴

Action area 1.2: Enhance risk-adjusted return for circular products and services

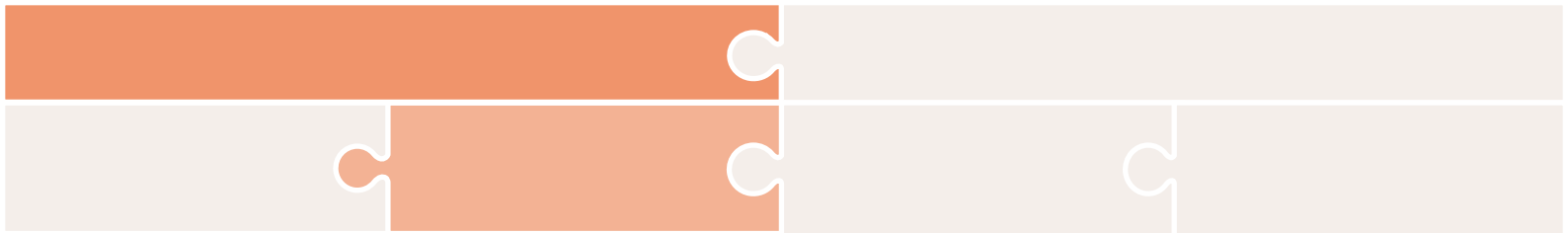
1.1 Create and nurture a market for circular products and services



1.2 Enhance risk-adjusted return for circular products and services

To attract private capital, return on investment needs to be secured in line with the risks associated with investing in circular business models. This requires addressing circular transition risks while recognizing circularity's long-term financial benefits.⁴⁵ Higher upfront costs for business owners and longer payback periods for investors can require publicly-led support mechanisms to lower or share risks and increase returns. A variety of financial instruments can be leveraged, tailored to different circular business models, risk profiles and project stages.

Action area 1.2: Enhance risk-adjusted return for circular products and services	
Governments	Financial regulators and central banks
- Move to full-cost pricing of externalities in market signals - Provide financial support to circular initiatives	N/A
Public financial institutions	Private financial institutions
Deploy financial mechanisms that de-risk and improve the return of circular products and services	Promote the integration of circularity principles in financial decisions



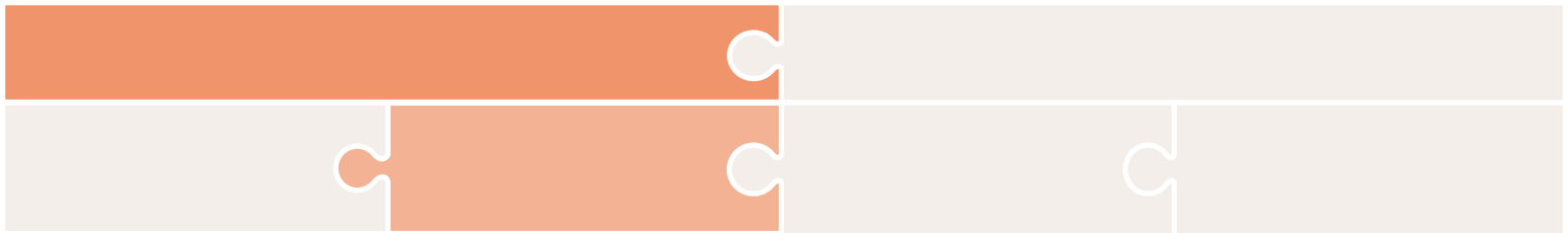
Governments

Move to full-cost pricing of externalities in market signals

Pricing linear externalities and valuing circular benefits can improve the risk-adjusted returns of circular solutions by aligning financial markets with the true costs and benefits of resource use. To correct market distortions and enhance returns for circular projects, governments can incentivize the integration of positive externalities (such as resource efficient and circular business models) and disincentivize negative externalities (such as pollution and waste generation) in market prices.⁴⁶ Possible incentives include tradable credits for secondary materials designed to create market-based incentives, payments for ecosystem services that internalize positive externalities such as carbon sequestration, water purification and biodiversity protection, and performance-based rewards for circular solutions. Similarly, economic instruments such as virgin resource taxes, landfill levies, and carbon pricing can shift financial burdens away from circular solutions, making them more competitive.

Italy's tax on virgin raw material and incentives for circular practices

Italy has launched tax incentives for circularity products, such as tax credits for the purchase of products that replace single-use plastics. These credits apply to items such as packaging containing recycled paper, plastics, aluminium and glass, as well as biodegradable packaging. Incentives include subsidies for eco-innovation that improve resource efficiency and reduce waste, as well as deposit-refund systems that factor in the environmental and economic costs of using virgin materials and disposing of waste, making circular practices more financially attractive.⁴⁷ Initially introduced for 2019 and 2020, the measure was renewed for 2023 and 2024 due to high demand. Available information indicates significant uptake, with demand for the tax credit largely outweighing the allocated budgetary resources for this measure.⁴⁸



New Zealand's landfill levy

New Zealand has implemented a landfill levy to discourage waste disposal and encourage resource reuse. The levy provides financial incentives to divert waste from landfills, promoting waste minimization and resource recovery. Since July 2021, the government has progressively increased the levy rate for municipal landfills from NZD \$10 per tonne to NZD \$60 per tonne as of July 2024. Further incremental increases are planned to reach NZD \$75 per tonne by July 2027, as well as an expansion to cover additional landfill types, including construction and demolition fills. By making waste disposal more expensive, it shifts the economic balance in favour of waste reduction and resource recovery initiatives.⁴⁹

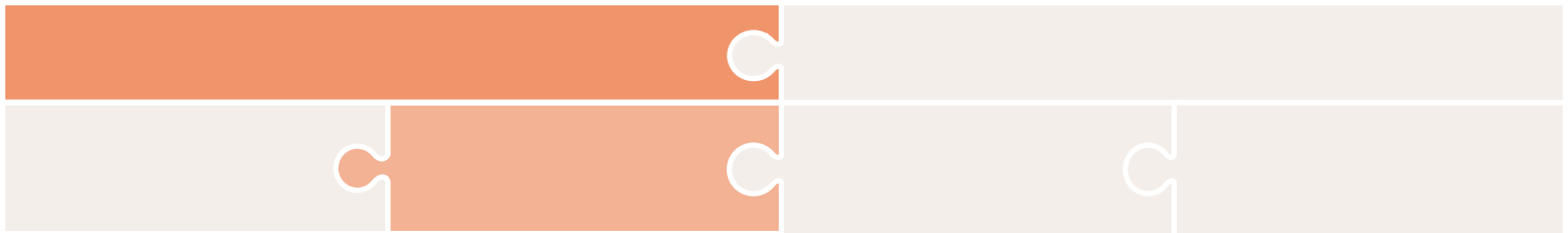
Chile's CORFO programmes

In Chile, the national development agency CORFO offers financial and technical assistance programmes that encourage businesses to internalize environmental externalities by promoting circular economy business models. These initiatives include targeted support for waste valorization technologies—such as transforming agricultural residues into biochar—which assigns economic value to emissions-reducing materials that would otherwise be treated as waste.⁵⁰

Additionally, CORFO's Circular Territories programme, developed in partnership with the Ministry of the Environment and SOFOFA Hub, puts Chile's national Circular Economy Roadmap into action by funding regional initiatives that reduce resource use and waste generation. These efforts link public funding to measurable sustainability outcomes, such as emissions reduction and job creation, thereby embedding the true environmental costs and benefits into market behaviour. The goals include generating 180,000 new green jobs, reducing waste generation per person by 25%, increasing material productivity by 60%, and raising the general recycling rate to 75%.⁵¹ By supporting early-stage innovation, subsidizing circular infrastructure and rewarding environmentally positive practices, these policies effectively align market incentives with the social value of reducing negative externalities.

Provide financial support to circular initiatives

Governments can directly fund circular and resource-efficient initiatives that face high short-term risks and struggle to attract private capital. By absorbing early-stage risks, governments can de-risk innovation, boost investor confidence, and enable businesses to invest in circular models and innovative technologies that require time to generate returns.⁵² In addition, governments could explore innovative funding solutions, for example adopting circularity mechanisms such as debt-for-nature swaps. Governments could explore similar mechanisms with commitments related to circularity, for example, a commitment to spend a portion of savings on circular businesses or activities.



Such public financial support for circular solutions could be seen as a long-term, mission-driven commitment, which—combined with industrial policy and innovation support—could scale systems-level transformation and deliver resilience, well-being and socio-economic value.

Debt-for-nature swaps

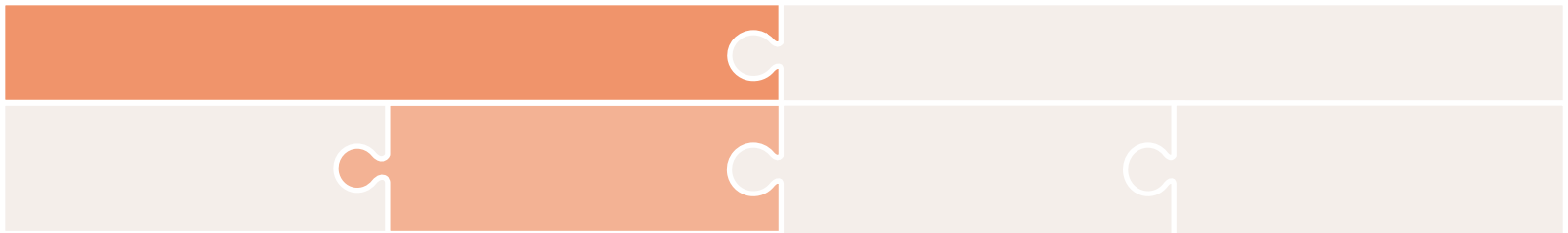
Debt-for-nature swaps help countries refinance sovereign debt on more favorable terms while committing to long-term nature conservation. These transactions typically involve restructuring a portion of a country's external debt in exchange for government commitments to their creditors to fund nature conservation, often through a dedicated trust.

For example, a debt-for-nature swap was arranged for Belize to repurchase a USD 553 million bond at a 55% discount through a USD 364 million blue bond issuance for marine conservation, underwritten by Credit Suisse and insured by the United States International Development Finance Corporation (DFC). DFC's insurance was key to enabling the issuance of funding at more favorable terms—long-term funding for 19 years, with a 10-year grace period and low interest rate. It was also instrumental in attracting private investors to sovereign debt restructuring.

The transaction reduced Belize's debt by about 10% of GDP and created an estimated USD 180 million fund for marine conservation. The deal secured protection for 30% of Belize's national waters and provided USD 4 million per year in marine conservation funding through to 2041, with an endowment for continued support thereafter.⁵³

Earlier in 2016, Seychelles exchanged USD 21.6 million of debt with support from The Nature Conservancy and donor funding to establish the Seychelles Conservation and Climate Adaptation Trust (SeyCCAT). The transaction protected one-third of the nation's ocean and created a sustainable financing vehicle for ongoing marine and climate resilience efforts.⁵⁴

Adapted to circularity, similar structures could support national circular economy roadmaps by linking debt relief to measurable progress on circularity, resource efficiency and green job creation, particularly in countries facing high debt burdens and sustainability challenges.



Public financial institutions

Deploy financial mechanisms that de-risk and improve the return of circular products and services

In 2023, MDBs mobilized approximately USD 87.9 billion in private capital for middle- and low-income countries—a 24% increase worldwide compared to the previous year. For lower-income countries private capital rose to USD 10.2 billion, marking a 40% increase and an all-time high for these regions.⁵⁵

MDBs and other public financial institutions can help attract private capital for circular products and services by deploying targeted financial instruments that reduce risks or improve returns. On the risk side, public financial institutions can use instruments such as:

- blended finance
- junior tranches that absorb first losses to protect investors with earlier repayment rights, or
- credit guarantees that protect private investors by covering losses if borrowers default or projects underperform

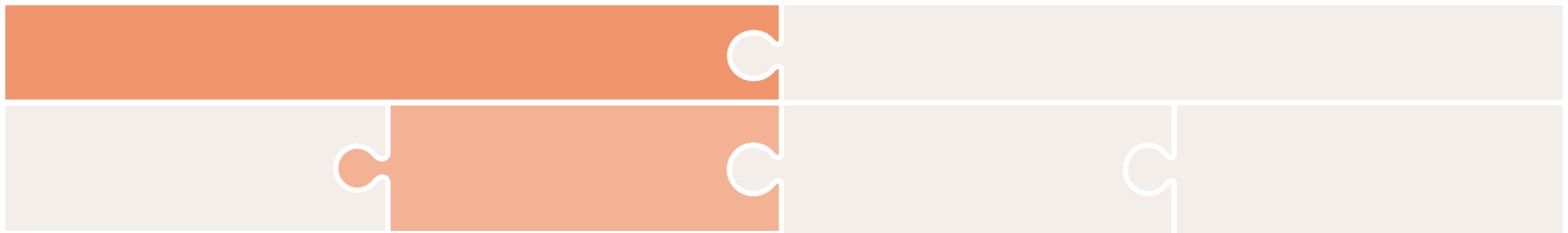
Such instruments absorb part of the financial risk of early-stage technologies and new business models, making them more attractive to private investors.

Public financial institutions can also invest directly as shareholders in venture capital funds (which finance early-stage, high-risk startups) or in private equity funds (which invest in more mature companies to support growth or transformation). This helps de-risk circular investments by sharing early-stage capital risks. It can also help steer these funds toward projects that meet strong circularity criteria, for example, by requiring recipients to demonstrate alignment with circular economy principles.

On the return side, public financial institutions can employ instruments that improve the financial viability of circular products and services by lowering capital costs, such as:

- concessional loans offered at below-market rates
- performance-based financing tied to circular outcomes
- circular economy bonds or sustainable bonds with circular principles
- private placements for circular initiatives, or
- trust funds dedicated to supporting circular activities

These instruments can be provided at preferred financial terms subject to circularity criteria and can be coupled with performance-based incentives, making circular economy projects more attractive to private investors.



Financing Polish innovation in battery recycling

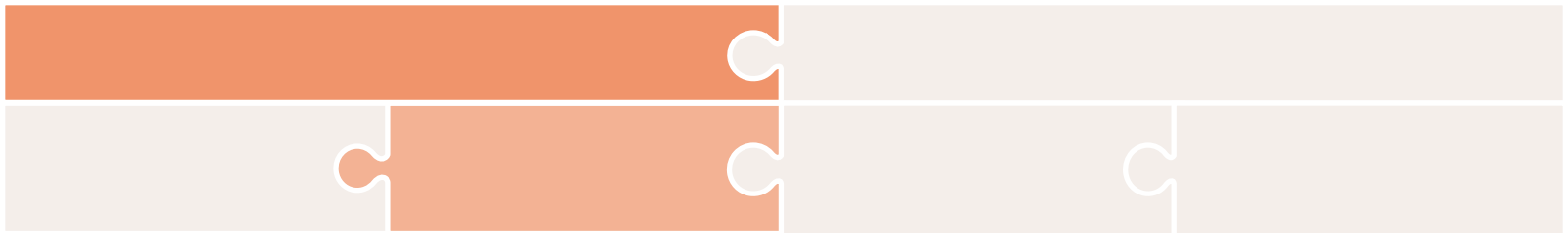
The European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB) and International Finance Corporation (IFC) are financing an innovative battery recycling operation through a combined USD 290 million equity investment in Elemental Holding, a Polish company specializing in the collection of used EV batteries across the European Union (EU), Middle East and the United States of America. As part of this private placement, EBRD contributed USD 75 million, the IFC USD 90 million and the Polish Development Fund USD 125 million. In addition, EBRD extended a EUR 52 million loan to finance the construction of a recycling facility. A grant through the EU's Important Project of Common Interests (IPCEI) scheme, with the support of the EIB, was received. This blend of equity, debt and grant financing exemplifies a strategic approach to scaling circular solutions in critical sectors.⁵⁶ The new facility has the capacity to process the equivalent of approximately 7.6% of EU batteries reaching their end of life, and to reduce greenhouse gas emissions by 92–98% by recycling metals rather than mining them.²⁸

Subscribing to Banco de Bogotá's sustainable bond

IDB Invest and IFC subscribed to Banco de Bogotá's sustainable bond, which supports circular economy initiatives, among other projects. In March 2023, Banco de Bogotá raised USD 230 million to finance social and green projects for small and medium firms, including women-led companies, social housing and climate initiatives, and circular economy projects. The bond proceeds will be used for activities such as improving reusable packaging design, extending product life through modular design, enhancing building modularity with shared public infrastructure and smart buildings, reusing treated water, and contributing to the restoration of strategic ecosystems. The MDB's participation in the financing reduced financing costs and enabled risk sharing through public and private blended finance.⁵⁷

African Development Bank's Africa Circular Economy Facility (ACEF)

The AfDB established the Africa Circular Economy Facility in 2022 to mainstream circular economy practices across the continent. ACEF serves as a trust fund dedicated to supporting circular economy initiatives, aiming to transform African economies by integrating circularity into national policies and fostering green growth. Aligned with the African Development Bank's ten-year strategy (2024–2033), ACEF is a financing mechanism for circular economy, designed to achieve the bank's dual objectives of inclusive green growth and strong, resilient economies.⁵⁸



Private financial institutions

Promote the integration of circularity principles in financial decisions

Research reveals that companies with higher circularity scores exhibit lower default risks and superior risk-adjusted performance, underscoring the financial benefits of adopting circular practices.^{59,60} Findings suggest that private financial institutions can enhance their investment strategies and portfolio management by integrating circular economy principles in financing decisions. By adjusting their credit risk assessment and lending criteria to account for the financial stability benefits of circular business models, financial institutions can better manage long-term risks and improve risk mitigation related to natural resource-related risks—such as scarcity, price volatility and supply chain disruptions. Embracing circularity as a strategic opportunity enables the development of targeted, outcome-driven and resource-efficient business models that strengthen resilience and long-term value while aligning with future-proof investments.

ABN AMRO has integrated circular economy principles into its risk assessment and financing strategies

The bank recognized that traditional financing models often fail to accommodate the unique characteristics of circular business models, which focus on resource efficiency, reuse and waste reduction. In response, they developed innovative financial solutions to evaluate, support and mitigate the risks associated with circular initiatives, including PaaS. They support companies in sectors such as manufacturing, textiles, electronics and construction to transition from linear models to circular systems. As of April 2023, the bank has financed nearly 190 circular initiatives, committing more than USD 1.7 billion and looking to increase this amount to USD 3.5 billion.⁶¹ The bank, together with other Dutch private financial institutions, applies a risk assessment framework that considers the long-term environmental impact of projects, as well as their alignment with circular economy objectives, such as extending product life cycles and promoting the reuse of materials.⁶²

Pillar 2: Evidencing the circular economy value proposition



Key message: The business case for circular economy must be strengthened and documented through evidence-based analysis to attract public and private capital

Despite increasing recognition of the growth opportunities, risk mitigation benefits, and positive sustainability impact of circular economy financing,⁷ as well as a growing adoption of circular economy national strategies and roadmaps,⁶ there remains a lack of sufficient data and empirical evidence to fully support large-scale investment flows.⁶³

Action area 2.1: Align public and private actors on circularity principles



2.1 Align public and private actors on circularity principles

2.2 Collect and use science-based data and metrics

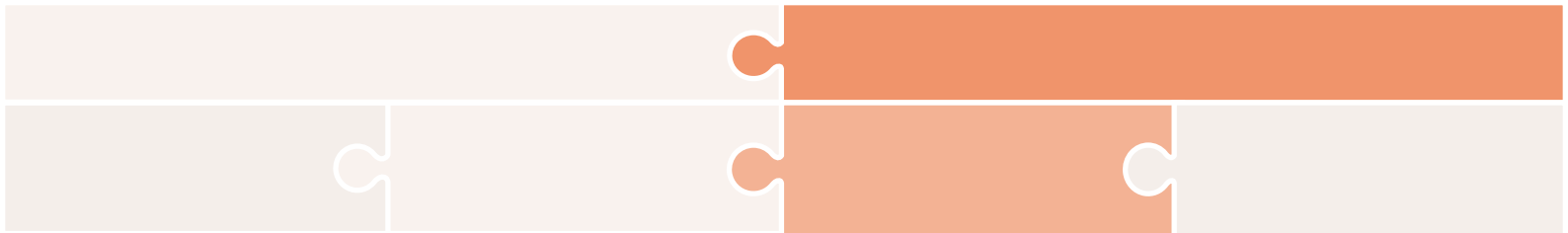
Creating a shared understanding of what circularity principles could entail would help capital providers to confidently integrate circular economy considerations into their investment decisions and financing criteria. Such principles could build on UNEP/EA.4/Res.1 (Innovative Pathways to Achieve Sustainable Consumption and Production) which acknowledged that “a more circular economy, one of the current sustainable economic models, in which products and materials are designed in such a way that they can be reused, remanufactured, recycled or recovered and thus maintained in the economy for as long as possible, along with the resources of which they are made, and the generation

of waste, especially hazardous waste, is avoided or minimized, and greenhouse gas emissions are prevented or reduced, can contribute significantly to sustainable consumption and production”.⁶⁴

A common language enhances market transparency, supports policy coherence and helps businesses assess their circularity potential. It also makes it easier to implement cross-border circular solutions, reinforcing cross-regional dialogue on funding best practice. Public and private capital providers can more effectively identify viable circular initiatives and evaluate their financial viability.⁶⁵ A common language also helps to build trust in circularity principles and strengthens their credibility. Such social capital is essential for mobilizing investment at scale and ensuring policy continuity.

Public and private stakeholders can work to align fragmented circular economy taxonomies, categorization systems and regulations across regions. This alignment should foster interoperability through common data inputs without enforcing strict standardization to allow for context-specific adaptability and real-life applications.⁶⁶

Action Area 2.1: Align public and private actors on circularity principles	
Governments	Financial regulators and central banks
Lead on alignment and advocacy efforts on circularity principles	Encourage private and public financial institutions to align with shared global circular economy principles
Public financial institutions	Private financial institutions
Contribute to government-led efforts on the alignment of, and advocacy for, circularity principles	Contribute to government-led efforts on the alignment of circularity principles



Governments

Lead on alignment and advocacy efforts on circularity principles

Building on existing global and regional circular economy networks and alliances such as the Global Alliance on Circular Economy and Resource Efficiency (GACERE), the LAC Circular Economy Coalition,⁶⁷ the African Circular Economy Alliance (ACEA),⁶⁸ the G7 Alliance on Resource Efficiency,⁶⁹ and the G20 Resource Efficiency Dialogue,⁷⁰ governments can drive the development of globally shared circular principles and integrate them into national policies towards global policy coherence. Multilateral Environmental Agreements (MEAs) such as the Basel, Rotterdam and Stockholm Conventions (BRS), play a pivotal role in defining and operationalizing circularity principles—particularly in the governance of secondary materials through rules on transboundary movement, waste classification and environmentally sound management. These conventions contribute to building transparent and harmonized shared principles for circular economy implementation.⁷¹

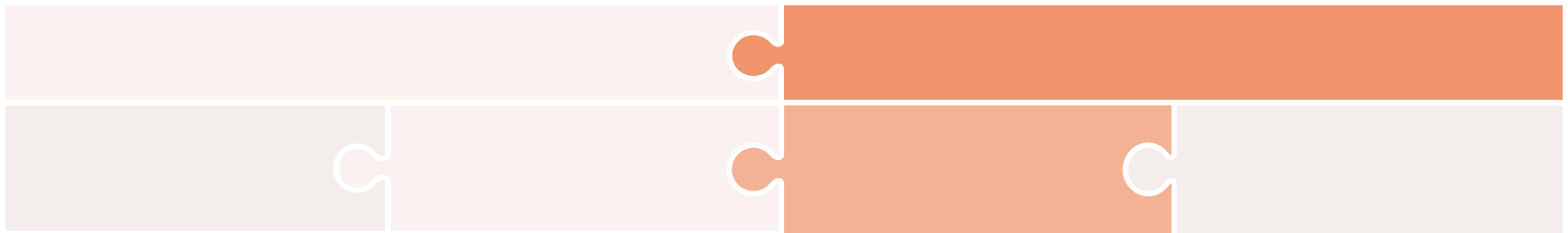
Other multilateral platforms, including the Local Authorities Major Group (LAMG) and the Local Governments and Municipal Authorities (LGMA) constituency under the United Nations Framework Convention on Climate Change, can also be leveraged to promote alignment and engagement across levels of government.

Global Alliance on Circular Economy and Resource Efficiency

GACERE is an alliance of governments at the global level willing to work together on and advocate for a global just circular economy transition and more sustainable management of natural resources. It operates at the political level and in multilateral fora, bringing together governments and relevant networks and organizations. GACERE aims to provide the global impetus for initiatives related to the transition to circular economy, resource efficiency and sustainable consumption and production, building on efforts being deployed internationally.⁷²

Latin American and Caribbean Circular Economy Coalition's shared vision

The coalition has launched its shared vision for a circular economy in the region. It aims to align countries towards a common understanding and approach to circular economy principles and practices, providing guidance for future projects.⁶⁷



Japan's revision of green bonds and green loan guidelines

In February 2025, Japan updated its Green Bonds and Green Loan Guidelines. The latest version includes a category on 'Circular economy adapted products, production technologies and processes (such as the design and introduction of reusable, recyclable and refurbished materials, components and products; circular tools and services); and/or certified eco-efficient products'.

This updated 'Green List'—of projects eligible for green bonds and loans, with reporting KPIs and negative environmental impacts—was developed by a working group following a broad public consultation. The updated Green List aims to stimulate Japan's green finance market and provide clarity as to what green projects are—including circular economy products, technologies and processes.

The revision is aligned with international guidance and guidelines for green bonds and loans, such as those developed by the International Capital Market Association (ICMA). It is also consistent with national plans and strategies such as Specific Guidelines for Formulating a New Basic Plan for Establishing a Sound Material-Cycle Society.⁶⁶

Financial regulators and central banks

Encourage private and public financial institutions to align with shared global circular economy principles

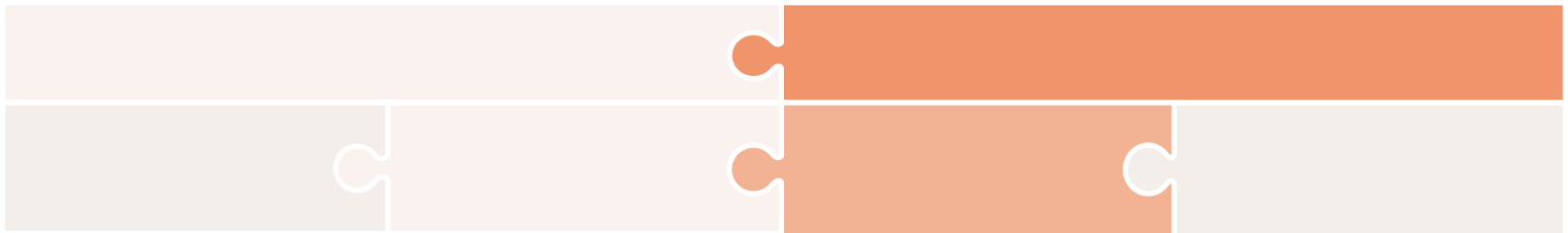
Shared circular economy principles help to ensure that financial institutions assess their clients' businesses and value chains using consistent criteria, and improve market comparability and businesses benchmarking.

Financial regulators can help define and promote shared circularity principles,ⁱⁱⁱ and encourage their integration into risk management, and investment decisions. Sustainable finance taxonomies can be an effective way to achieve this. They can help to:

- identify activities that contribute to a more circular economy
- ensure that activities that contribute to objectives such as climate change mitigation do not significantly harm the objective of transitioning to a circular economy

Certain countries are starting to include circular economy as a core objective in sustainable finance taxonomies. For example, Brazil's national sustainable finance taxonomy will include circular economy as a distinct environmental objective.⁷³ After an initial development phase focused on climate related objectives—developed in consultation with UNEP FI and GIZ, following public consultation—a second development phase will aim to include other environmental and socioeconomic objectives, including the transition to a circular economy.

iii Such shared circular economy principles are not yet available but could build on UNEP/EA.4/Res.1 (Innovative Pathways to Achieve Sustainable Consumption and Production),⁶⁴ which acknowledged that “a more circular economy, one of the current sustainable economic models, in which products and materials are designed in such a way that they can be reused, remanufactured, recycled or recovered and thus maintained in the economy for as long as possible, along with the resources of which they are made, and the generation of waste, especially hazardous waste, is avoided or minimized, and greenhouse gas emissions are prevented or reduced, can contribute significantly to sustainable consumption and production”.

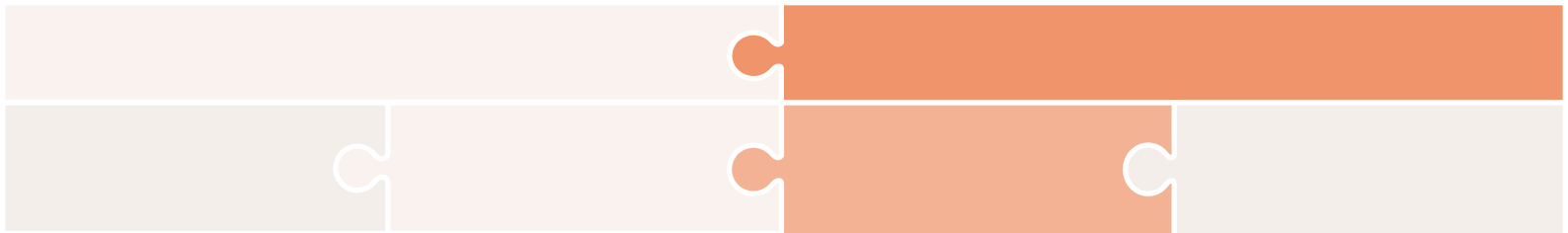


European Union and China discussions to align circular economy taxonomies

The European Union and China have held bilateral discussions on aligning their circular economy taxonomies, recognizing the need for common standards to facilitate investment and trade in circular solutions. The EU Circular Economy Action Plan and China's 14th *Five-Year Plan for Circular Economy* provide a roadmap for harmonization efforts.⁷⁴ Aligning on circular economy principles and taxonomies can help address trade barriers resulting from regulatory discrepancies and from inconsistent criteria to qualify a product or project as circular. It can help develop solutions that can be deployed across multiple markets without major adjustments.

ASEAN Taxonomy for Sustainable Finance

The ASEAN taxonomy includes 'Resource Resilience and the Transition to a Circular Economy' as one of the four environmental objectives to achieve. The ASEAN taxonomy has guided the incorporation of circularity principles into national taxonomies across the region—for example, in Indonesia, Malaysia, Singapore and Thailand.⁷⁵



Public financial institutions

Contribute to government-led efforts on the alignment of, and advocacy for, circularity principles

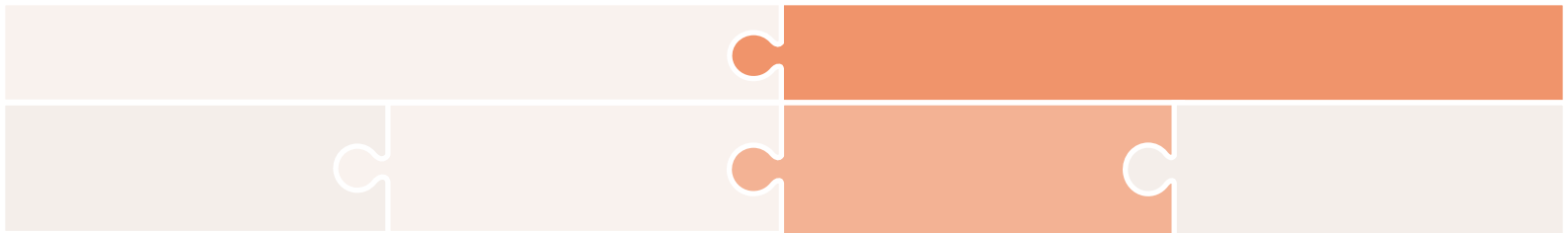
Public financial institutions can play a role in developing shared global circularity principles. This helps build policy coherence, preventing conflicts between circular economy global guidelines and domestic ones.²⁹ By helping develop common principles for circular economy, public financial institutions can contribute to aligning how circular investments are classified—including in blended finance transactions with private financial intermediaries—bringing greater consistency across public and private financial institutions. For instance, the International Finance Corporation (IFC) led a working group that issued harmonized circular economy finance guidelines, offering practical guidance on identifying eligible activities. This underscores the important role public financial institutions can play in enabling alignment across the investment landscape.⁷⁶

Public financial institutions could build on the experience of earlier alignment efforts in climate or nature finance, such as the joint MDB Climate Finance Tracking methodology,⁷⁷ which has helped to harmonize climate-related investment classification and reporting, and to improve consistency across financial institutions and markets. Building on such initiatives, they could consider developing common principles to classify and report circular economy investments.

Multilateral development banks' Common Principles for tracking nature-positive finance

Launched in December 2023 to support the implementation of the Kunming Montreal Global Biodiversity Framework, these principles promote activities that reduce the environmental footprint of economic development and preserve or restore nature—such as investments in nature-based solutions, sustainable land use, and ecosystem restoration. Circular economy projects, such as those focused on reducing natural resource extraction, align closely with these nature-positive goals.⁷⁸

A year after implementing the Common Principles, MDBs met at a side event at COP16 titled 'Nature Finance: Defining and Tracking MDB Investments that Support Implementation of the GBF'.⁷⁹ MDBs shared examples of nature-positive finance instruments implemented and highlighted that the common principles have enabled more systematic identification of financing opportunities, driven improved environmental outcomes as a result of the emphasis on nature-positive criteria in financed projects, and catalysed broader policy adoption of nature-positive financing practices.



Private financial institutions

Contribute to government-led efforts on the alignment of circularity principles

Private financial institutions can provide insights on circularity principles and circular business models classification, especially around usability and interoperability in disclosure standards and sustainable finance taxonomies. Private financial institutions can adopt and incorporate circularity principles in:

- their internal processes and policies, such as client due diligence, credit processes, and sectoral policies defining priorities and investment criteria
- their client engagement, for instance when defining indicators to assess the circularity of their activities and monitor their impact on the environment, people and economies
- their financial instruments, for instance by including circularity criteria in their sustainability-linked loans

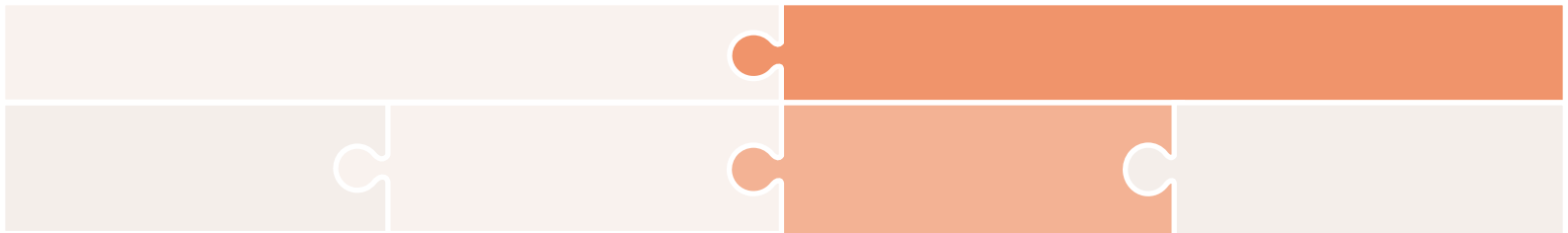
This can contribute to a continuous refinement of circularity principles for greater consistency across markets.⁸⁰

Private financial institutions can help integrate circular economy principles into national and international accounting standards—such as the International Sustainability Standards Board (ISSB) Standards—to ensure corporate financial statements reflect the long-term value of circular business models, such as asset durability, resource efficiency, and reduced environmental liabilities.

Developing circular economy categorization systems

Private financial institutions can provide clarity and consistency in identifying circular investments. In Colombia, Bancolombia and Banco de Bogotá actively contributed to the creation of a circular economy categorization system, in partnership with IDB Invest, financial industry association Asobancaria and other stakeholders, supporting the integration of circularity criteria into financing decisions and piloting investment assessments.⁸¹ Building on learning from the Colombian experience, IDB developed a circular economy categorization system for financial institutions in Peru,⁸² engaging with multiple stakeholders, including the Peruvian Federation of Municipal Savings and Credit Banks (FEPCMAC).

Similarly, in Canada, a group of banks supported the development of a national framework to guide circular economy financing, helping to build a shared understanding across sectors.⁸³ UNEP FI is currently developing similar initiatives in various countries across Latin America and the Caribbean, with contributions from private financial institutions and other stakeholders.



SASB Standards

The Sustainability Accounting Standards Board (SASB)—now part of the International Sustainability Standards Board (ISSB) under the International Financial Reporting Standards (IFRS) Foundation—provides industry-specific standards that help companies disclose financially material sustainability information. While not explicitly focused on circular economy, several sectors—such as metals and mining, waste management, and consumer goods—include metrics related to material recovery, product life cycle extension and resource inputs, which are closely aligned with circular economy principles. This enables more circular-sensitive financial disclosures and enhances the ability of investors and financial institutions to assess circularity-linked risks and opportunities. By fostering consistent and comparable reporting, the SASB standards contribute to the broader alignment of corporate disclosures with globally shared sustainability goals and support informed decision-making across markets. They can help build trust in circular economy disclosures and support the long-term operability and credibility of circularity principles in financial markets.⁸⁴

Action area 2.2: Collect and use science-based data and metrics

2.1 Align public and private actors on circularity principles



2.2 Collect and use science-based data and metrics

Collecting and using science-based data on circularity helps to:

- assess the level of adoption of circular policies and businesses practices
- measure their impact on a full life cycle basis on the environment, economies and societies

Better access to data allows early identification of business inefficiencies, resource dependencies and potential supply chain disruptions. This reduces uncertainty, enhances risk management, and contributes to more predictable and comparable outcomes, creating a more attractive and stable environment for investment. Achieving this requires coordinated action by all stakeholders to evidence the value proposition of circular economy approaches. The depth and scope of data collection and impact analysis can be adapted to the capacity and context of the organization, ensuring that smaller actors—including micro, small and medium enterprises (MSMEs)—can engage meaningfully without facing undue reporting burdens.

Action area 2.2: Collect and use science-based data and metrics

Governments	Financial regulators and central banks
■ Fund research to measure the environmental and socioeconomic impacts of circular policies and business practices ■ Fund public research on material flows and cycling of materials and resources back into the economy through secondary markets ■ Encourage circular economy and natural-resource-related data gathering by businesses	■ Encourage private and public finance institutions to gather circular economy and natural-resource-related data ■ Strengthen natural resource depletion risk considerations in existing environmental risk assessments
Public financial institutions	Private financial institutions
■ Collect impact data through pilot projects on circular economy policies and business practices	■ Incorporate circular considerations into risk and return analysis

Governments

Fund research to measure the environmental and socioeconomic impacts of circular policies and business practices

Dedicated research projects can focus on producing data-driven analyses of circular economy's effects on resource efficiency, GDP growth, job creation, well-

being, gender equality and just transitions, as well as on climate and nature, providing the evidence needed for informed investment and policy decisions. Initial research on the positive impact of circular products and services on industrial competitiveness is developing, but data to evidence such positive impact is still lacking.⁸⁵ It is thus essential to generate evidence on how circular economy solutions can enhance industrial competitiveness—for example by reducing resource input dependency, improving cost-efficiency, strengthening supply chain resilience, and enabling innovation-driven growth.

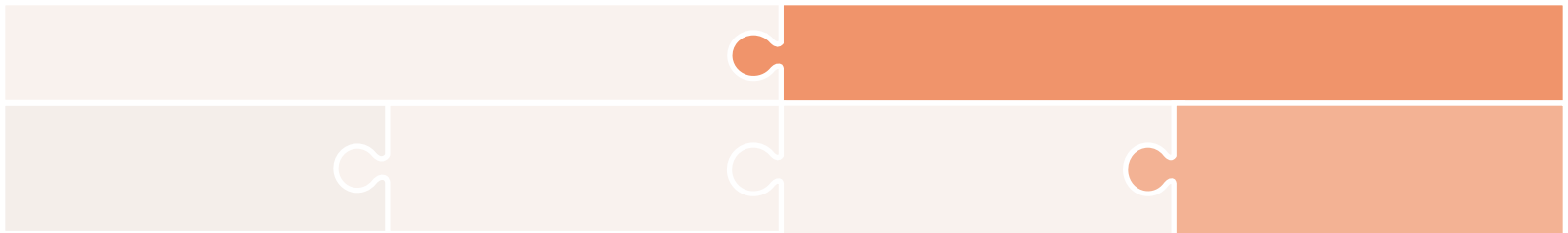
Governments can also ensure that research outputs include metrics relevant to financial institutions—such as return on investment, payback periods and capital efficiency—to strengthen the business case and support financing decisions. The OECD has conducted international reviews of national and subnational circular economy monitoring frameworks.⁸⁶ UNEP has mapped national, regional and global data on core circular economy indicators to support targeted policymaking and advance the shift to a circular economy.⁸⁷ The United Nations Economic Commission for Europe (UNECE) has established a task force for measuring circular economy.⁸⁸ These initiatives may help governments align their monitoring efforts with international best practice.

Impact analysis should be based on a full life cycle analysis, as described in the UNEP policymakers' guide to life cycle assessment. Life cycle assessment is key to identifying which circular practices deliver genuine climate benefits and which may be counterproductive.⁸⁹ Integrating circularity principles more effectively into GHG emissions accounting rules, such as in the GHG Protocol currently being updated,⁹⁰ could help capture the full climate mitigation potential of circular business models.⁹¹

Governments can also support the development of digital platforms and technologies that enable capital providers to enhance traceability, transparency and accountability across circular value chains by securing and verifying data flows. This facilitates consistent risk assessment, real-time performance tracking, and the effective integration of circularity metrics into sustainable finance decisions.⁹²

South Korea's Green New Deal

The Green New Deal includes research grants for measuring circular economy's impact on employment in sectors such as recycling, renewable materials and circular manufacturing.⁹³ The research findings influence national investment strategies.⁹⁴



Fund public research on material flows and cycling of materials and resources back into the economy through secondary markets

Governments can fund public research to develop quantitative data on material flows and their cycling back into the economy through circular products and services and secondary markets.

The International Resource Panel Global Material Flows Database, for instance, provides internationally harmonized data on resource extraction, trade, consumption and waste, helping governments, policy researchers and other stakeholders trace the links between economic growth and raw material use.⁹⁵

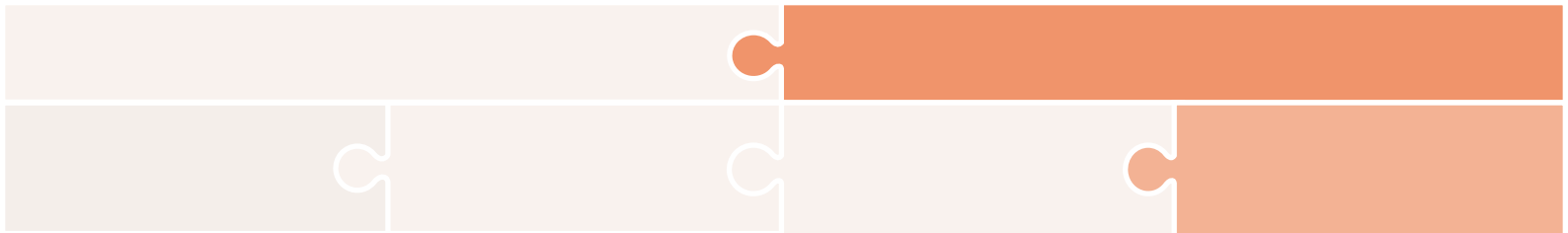
Encourage circular economy and natural-resource-related data gathering by businesses

Improved access to consistent data enables a robust monitoring of circular economy outcomes and supports the integration of circularity into public policy, investment decision-making, and risk assessment processes.⁹⁶

Governments can encourage businesses to gather data on circular economy to enable science-based, data-driven documentation of the circular economy value proposition. This could encompass key indicators across the value chain, including resource use and efficiency, potential for reusability and repairability, product longevity, potential for maintenance and regeneration, and end-of-life recovery and reintegration. These data are essential for assessing circularity rates and for generating insights into how circular practices contribute to economic resilience, environmental outcomes and social well-being. Leveraging established frameworks, such as 'UNEP's report 'Circular Economy: from indicators and data to policy-making',⁹⁷ the UN Global Compact and the sustainability disclosure standards issued by the International Sustainability Standards Board (ISSB)⁹⁸ can streamline implementation, ensure international coherence, improve comparability across jurisdictions and minimize additional reporting burdens.

China guidelines on corporate sustainability reporting

New corporate sustainability reporting (CSR) guidelines issued in 2024 require certain listed companies to prepare and publicly disclose a corporate sustainability report. They require disclosure on governance, strategy, risk management, metrics and targets, in a number of topics including inter alia circular economy or supply chain security.⁹⁹



United Arab Emirates' Circular Economy Policy 2021–2031

The United Arab Emirates' Circular Economy Policy 2021–2031¹⁰⁰ identifies four priority sectors -sustainable manufacturing, green infrastructure, sustainable transportation, sustainable food production and consumption-, based on their role in the national economy and on their potential for stimulating and developing a circular economy in the country. The Circular Economy Policy includes a data and monitoring framework with 21 potential indicators across 5 groups (economic performance indicators, performance indicators in resource productivity, performance indicators for renewable energy and greenhouse gas emissions, performance indicators in waste generation, and resource productivity indicators). Core indicators -including domestic material consumption per unit of GDP, CO₂ emissions per unit of GDP, municipal solid waste generation intensity, percentage of recycled waste as proportion of total waste generated (hazardous and no hazardous)- cover 25% of the circular economy core indicators proposed in the Joint UNECE/OECD Guidelines for measuring circular economy.⁹⁷

Financial regulators and central banks

Encourage private and public finance institutions to gather circular economy and natural-resource-related data

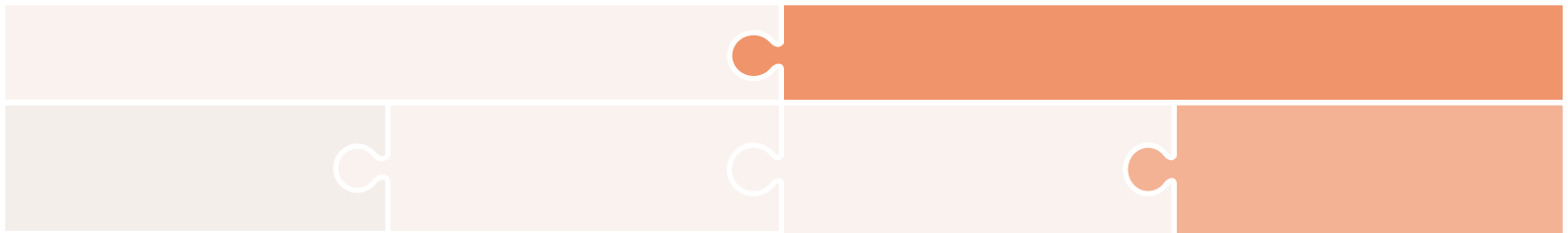
Financial regulators and central banks could encourage financial institutions to collect and analyse data on circularity and on natural-resource-related risks. This could help financial institutions assess the impacts of natural resources depletion on portfolios and long-term performance, facilitating better management of risks like natural resources scarcity, raw materials price volatility and regulatory changes. For this purpose, financial institutions can rely on a growing set of disclosure standards (most of which are voluntary) that specifically target circularity. These include Circulytics by Ellen MacArthur Foundation,¹⁰¹ Circular Transition Indicators by WBCSD,¹⁰² or the recently developed ISO 59020 *Circular Economy—Measuring and assessing circularity performance*.¹⁰³

The European Single Access Point (ESAP)

ESAP is an initiative by the European Union to centralize access to financial and sustainability-related information. By providing a single, streamlined platform, ESAP makes it easier for stakeholders—including investors, regulators and the public—to access data. This centralized access supports transparency, reduces compliance costs and informs decision-making.¹⁰⁴

Strengthen natural resource depletion risk considerations in existing environmental risk assessments

As natural resources become scarcer, their depletion can disrupt economic stability, increase costs and create systemic risks for financial systems.¹⁰⁵ By design, circular economy approaches directly address natural resource depletion by promoting resource efficiency, reuse and regeneration, reducing dependence on virgin materials and lowering exposure to raw material volatility. Regulators could consider further developing existing climate- and nature-related risk assessments by incorporating natural resource-related risks and assessing how they can generate financial risks.



Network for Greening the Financial System (NGFS)

The NGFS has developed a conceptual framework¹⁰⁶ to help central banks identify and assess nature-related financial risks, arising inter alia from natural resource depletion. It aims to provide a structured approach for integrating environmental risks into financial stability assessments, fostering a shared understanding among regulators. This helps ensure that central banks can better evaluate how resource scarcity—among other nature-related risks—might affect financial institutions, investments, and the broader economy. This proactive guidance supports the resilience of the financial system in the face of environmental challenges.¹⁰⁷

Public financial institutions

Collect impact data through pilot projects on circular economy policies and business practices

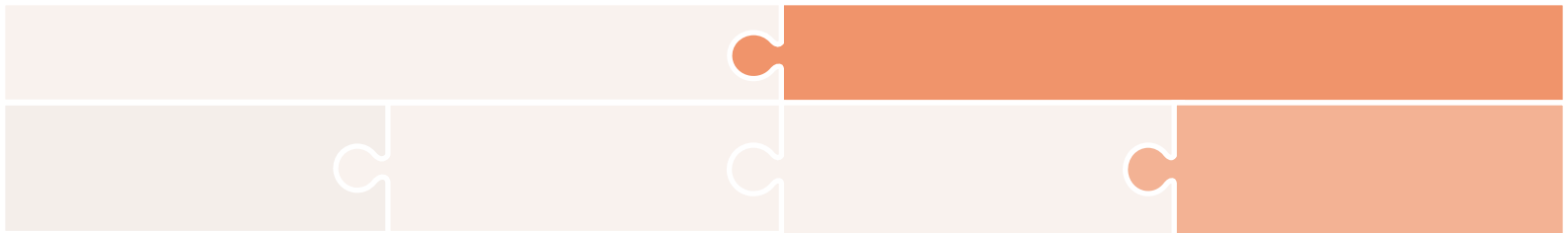
Piloting real cases of circular economy initiatives—supported by public financial institutions through funding or technical assistance—is a powerful way to collect data and demonstrate the value proposition of circularity for economic growth, financial risk reduction and environmental and social benefits. This can help illustrate the feasibility and benefits of circular economy models, making it easier to attract further capital and scale up the adoption of circular economy practices across regions and industries.

E-waste recycling in Nigeria

The African Development Bank funded a circular electronics waste management pilot in Lagos, testing how informal waste pickers could be integrated into a formal, profitable recycling system. The pilot created e-waste collection hubs where old electronics were refurbished or dismantled for valuable materials such as copper and gold.¹⁰⁸ The pilot improved environmental outcomes and generated income opportunities for more than 20,000 people involved in refurbishment activities, many of whom are skilled workers. Informal vocational training programmes linked to the sector graduate more than 2,000 individuals annually, further strengthening local capacity and circular job creation.¹⁰⁹ The pilot demonstrated the viability of formalizing e-waste flows to unlock environmental, economic and social benefits.

Integrating environmental risk into financial impact assessment

Public financial institutions are increasingly developing tools to assess the materiality of environmental risks, including the degradation of ecosystem services and natural resources. For instance, in alignment with guidance from institutions such as the European Central Bank (ECB) and the International Monetary Fund (IMF), these tools aim to integrate nature-related risks into financial governance and decision-making processes. The ECB's guide on climate-related and environmental risks provides a structured approach for financial institutions to embed environmental risk considerations—such as biodiversity loss and ecosystem degradation—into credit assessments, market risk evaluations and broader strategic planning. This shift supports the development of more accurate, science-based data on the environmental and financial performance of circular economy projects, reinforcing the investment case and helping to scale successful pilots into mainstream finance.¹¹⁰



Private financial institutions

Incorporate circular considerations into risk and return analysis

Private financial institutions can integrate circular considerations into their risk and return analysis. This can contribute to collecting robust evidence of the comparative advantage of circular business models that offer strong long-term returns and de-risking potential. Such evidence can be shared by financial institutions through maintaining a circular economy investment database, publishing case studies, preparing investment performance reports and by funding academic research.

In order to direct capital towards high-impact solutions, private financial institutions can prioritize value chains with high circular potential and high impact on climate, nature, pollution, such as critical energy transition minerals, construction and agrifood systems. Private financial institutions can generate analysis on risk exposure and default risk in key sectors, particularly for emerging technologies and innovative circular solutions, on a full life cycle basis. It is important that this systemic, value-chain-based approach includes social impact considerations to promote just transitions, particularly by identifying green job creation and supporting the inclusion of MSMEs in emerging circular markets.

De Nederlandsche Bank's circular risk scorecard

De Nederlandsche Bank created a circular risk scorecard to help financial institutions evaluate the risks and opportunities of circular business models.¹¹¹ Findings from more than 100 scorecard assessments show that circular companies have a lower risk profile than linear ones. In 2025, the goal is to evaluate 250 more companies, with the objective of integrating a circular perspective into financial institutions' current risk models.



Conclusion and way forward

This paper outlines actionable priorities for key public and private stakeholders, highlighting the roles each can play in making circular economics work and in evidencing the circular economy value proposition to unlock circular economy financing at scale:

Governments can actively foster demand for circular products and services, use fiscal and policy instruments to support their financial viability and help create shared circular economy principles. They can also facilitate the collection and use of circular economy data to build trust and confidence.

Financial regulators and central banks can help financial institutions understand and manage risks associated with both linear and circular economies, by encouraging collection of data on circularity and natural resource use and by integrating natural resources depletion risks more strongly into existing risk assessments.

Public financial institutions can help de-risk circular economy investments in the short term by providing financial support, technical assistance and capacity building, thereby enabling both public and private sector actors to scale up financing for circular business models.

Private financial institutions can help scale up circular economy financing by engaging proactively with clients to identify circular business opportunities, by incorporating circular considerations into their risk and return analysis, and by developing innovative financial products that support the wider adoption of circular business models.

Unlocking circular economy financing requires a whole-of-society approach, bringing together stakeholders across the financial system, the real economy, civil society, and all levels of government. Coordination across global, regional, national and subnational levels, along with strong multi-stakeholder collaboration, is essential to ensure coherence, legitimacy and lasting impact.

Focusing on specific value chains can help shift from isolated transactions to orchestrated strategies, aligning public and private investments across circular interventions, and enabling scalable impact through coordinated and coherent policy, financing and behaviour change.

Regional actionable guidelines will be developed in Africa and Latin America and the Caribbean regions, as a collaborative effort between UNEP FI, GACERE, ACEA and the LAC Circular Economy Coalition, to address local regulatory, economic and societal contexts, providing tailored strategies to accelerate and scale up circular economy financing in accordance with national and regional contexts.

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GACERE

Global Alliance on
Circular Economy and
Resource Efficiency

UN 
**environment
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**finance
initiative**

UNEP Finance Initiative (UNEP FI) brings together a large network of banks, insurers and investors that 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 establishing the world's foremost sustainability frameworks that help the finance industry address global environmental, social and governance challenges.

Convened by a Geneva, Switzerland-based secretariat, more than 500 banks and insurers with assets exceeding USD 100 trillion are individually implementing UNEP FI's Principles

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for Responsible Banking and Principles for Sustainable Insurance. Financial institutions work with UNEP FI on a voluntary basis to apply the sustainability frameworks within their industries using practical guidance and tools to position their businesses for the transition to a sustainable and inclusive economy.

Founded in 1992, UNEP FI was the first initiative to engage the finance sector on sustainability. Today, the Initiative cultivates leadership and advances sustainable market practice while supporting the implementation of global programmes at a regional level across Africa & the Middle East, Asia Pacific, Europe, Latin America & the Caribbean and North America.

ABOUT GACERE

Bringing together governments and relevant networks and organisations, the Global Alliance on Circular Economy and Resource Efficiency (GACERE) aims to provide a global impetus for initiatives related to the circular economy transition, resource efficiency and sustainable consumption and production, building on efforts being deployed internationally. GACERE members will do so by working together and advocating at the political level and in multilateral fora, in particular at the United Nations General Assembly (UNGA), the United Nations Environment Assembly (UNEA) and in G7/G20.



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