



Unlocking Circular Economy Finance in Latin America and the Caribbean:

The Catalyst for a Positive Change

Findings and recommendations for
Policymakers and the Financial Sector

2023 United Nations Environment Programme

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An interest group was formed to actively provide critical feedback on the report, concurrently helping set the foundations for the circular economy stakeholder network in Latin America and the Caribbean. Dialogues with key stakeholders also raised awareness and enriched the findings and recommendations.

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Foreword

Today we face a triple planetary crisis of climate change, nature loss, and pollution. And the only way to overcome it will be by engaging all economic actors to join forces to seek innovative solutions that scale-up investments and drive a sustainable and inclusive future for all. The circular economy model enables us to reassess how we produce and consume and bring new solutions to designing out waste and pollution, keeping products and materials in use as long as possible, and regenerating natural systems. The Latin America and the Caribbean region has significant potential for further implementing circular economy models, which are aligned with the Paris Climate Agreement and the UN Sustainable Development Goals (SDGs).

To this end, the United Nations Environment Programme (UNEP), through the Global Opportunities for Sustainable Development (GO4SDGs) and UNEP FI, partnered with the Inter-American Development Bank Group to develop this report that makes recommendations to policy makers and financial institutions on increasing public and private investment into the circular economy in the region. It included multi-stakeholder consultations and engaged strategic partners in the regions dedicated to promoting circular economy and sustainable finance. This includes the participation of the Latin America and the Caribbean Circular Economy Coalition, which is committed to moving forward some of the recommendations of this report. Some key messages are the urgent need to increase knowledge and cooperation on joint action to bridge the circular investment gap. This includes developing a common taxonomy, building institutional capacity, and knowledge development, as well as improving multistakeholder collaboration in the public and private finance ecosystem.

This is one of the first steps in supporting the financial sector and governments in the urgent journey to adopt circularity as a priority. By finding innovative instruments and policies that will shift investment toward circularity and new business models, together these key actors can create solutions that overcome the triple planetary crisis and achieve sustainable development and prosperity for all.

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Foreword

The circular economy plays a vital role and a pathway for companies' contribution to the Sustainable Development Goals and the Paris Agreement. The public and the private sector in Latin America and the Caribbean are increasingly recognizing the value of transitioning to a circular economy, which can be seen in rapidly evolving regulation, national plans, integration in NDCs, as well as in concrete actions from business who see value in mitigating numerous environmental and economic risks, as well as an opportunity for differentiation, reaching new markets, and developing new business models.

Financial institutions can also derive value from this agenda by actively supporting their clients in a circular economy transition. While we are encouraged by the increased interest from national development banks and commercial banks in the region on how to incorporate circular economy into their sustainable finance strategies and effectively respond to this opportunity, we are also aware of existing limitations in terms of lack of clear taxonomies, comparable metrics and the fundamental changes needed in the appraising of circular models.

An inclusive circular transition is also an imperative in this agenda, and of particular importance in our region, which is hard hit by deep inequalities; and which has a significant participation of MSMEs in value chains. Ensuring MSMEs are not left behind in terms of access to guidance, markets, and financing will require a concerted approach from regulators, corporations, and financial institutions alike.

At IDB Group we are committed to advance the circular economy transition in the region; through partnerships and collaboration; working hand in hand with our clients in the public and private sectors and strengthening the knowledge base in this area. This paper provides a valuable overview of the current circular economy landscape in the region, and insights and recommendations on how the region, building on efforts to date, could catalyze financing for this transformative agenda going forward.

We hope this publication spurs healthy dialogue and actions that can move forward this important transition to a circular economy in the region.

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Executive summary

The study was commissioned by UNEP FI and GO4SDGS, in close cooperation with IDB and IDB Invest, and with co-funding from Germany (BMUV) and the European Commission. The research and technical review were carried out by Instituto Escolhas and Exchange 4 Change Brasil, contemplating seven countries in Latin America and the Caribbean (LAC): Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Mexico, and Peru. Discussions were held with key government officials and stakeholders, including financial institutions and financial industry regulators, which helped gain perspective on issues affecting the political and investment environment necessary to foster circular finance in the region. An interest group was formed to provide critical feedback on the report, and concurrently helped establish the foundations for a circular economy stakeholder network in LAC. The report aims to present an overview of existing circular economy practices in the region and provide recommendations to financial institutions, regulators, and policymakers on how to advance towards circular economy implementation.

Financial institutions, and government bodies can play a crucial role in further developing and promoting the circularity agenda. This includes designing financial instruments, incentives and policies that can accelerate the transition and foster a financial ecosystem that is genuinely geared towards promoting the circular economy. It is an important market signal when we see the financial sector allocating more capital to circular business models rather than existing linear ones.

This report includes an overview of the current legislative landscape designed to promote the circular economy in Latin America and the Caribbean. All seven countries considered for this study have already included circular economy elements in their national development plans and environment and climate programs, including developing targets for their Nationally Determined Contributions (NDCs) and systems for recycling and reusing waste materials. **Moreover, some governments are linking circular economy ambitions with their climate action plans and NDCs to promote innovation and job creation.** The inclusion of the circular economy as a critical topic in multilateral issues, the publication of roadmaps and national strategies for circular transition, and the formalization of commitments are all initiatives that denote the growing importance of the topic for the region. **The analysis shows that all seven countries are on the right path toward circularity. Existing policies and local regulations enable a national long-term vision of circular expected returns. Incorporating propitious business models should contribute to creating a fair, regenerative, global circular economy.**

Circular finance goes beyond innovation and green finance and assesses the requirements for developing a broader view of value generation, new formats of risk assessment, long-term thinking and collaborative efforts.

The research has identified six different types of financial instruments grouped into four categories that have been used to accelerate the circular transition in LAC: 1. debt-based instruments; 2. equity-based instruments; 3. hybrid instruments; and 4. non-reimbursable funds.

Financial institutions are starting to scale up financial instruments with circular foundations. The rise of climate-related risk management by financial regulators and supervisors is changing the LAC economic landscape, providing diversification and redirection of resources toward climate mitigation and adaptation endeavors. **Pre-existing commitments to environmental and social risks have led some public and private financial institutions in LAC to include the circular economy among the thematic areas supported by certain products and programs. For example, the use of debt-based instruments, such as green bonds and long term credits, to eliminate waste and pollution from the beginning of the production cycle, which aims to maintain products and materials in use while regenerating natural systems (for example: Sustainable Credit Line Bancolombia, and Kablin Green Bond).**

The successful transition to the circular economy requires the capability to measure and evaluate progress on circularity performance in different contexts and scopes (Kirchherr, Reike and Hekkert 2017; Potting et al. 2018). In that sense, **the metrics for circularity and dedicated assessment methodologies have become part of the global debate to identify and finance circular business models, as well as support circular economy finance strategies.** The “Principles for Responsible Banking Guidance on Resource Efficiency and Circular Economy Target Setting” (United Nations Environment Programme Finance Initiative [UNEP FI] 2021) provide insight into getting started, accelerating and scaling up financing for the circular economy transition by setting appropriate targets. **There is also a need to connect circular economy indicators with ESG frameworks and decarbonization agendas in compliance with the Paris Agreement, which will ensure that the circular economy is conceived as being part of Agenda 2030 and as instrumental in achieving the UN Sustainable Development Goals (SDGs).**

The study identified opportunities for the financial sector and defined the different roles involved in creating **a circular economy finance ecosystem that unlocks concrete results. At present, the circular finance ecosystem is still under development in LAC,** with Chile taking the lead. The Chilean national development agency, CORFO, has gained prominence in the regional arena through its circular economy-focused innovation programs. **The main actors of the LAC ecosystem are the multilateral development banks, the national development banks, commercial banks, and private equity companies.** The region is still lacking public equity instruments that are specifically dedicated to the circular economy. Still, there is excellent potential to develop a scheme that enables the development of local markets and resource allocation.

Moving to a circular business model is a gradual process, in which different knowledge and experiences can contribute to leapfrog solutions. Through the case studies conducted,

we have seen that innovation ecosystems, business mentoring, acceleration programs, and financial mechanisms have all offered tremendous value to LAC entrepreneurs' journeys, facilitating knowledge exchange and access to networks and financial resources.

The study has also demonstrated how partnerships can bring additional value and revenues for circular entrepreneurs and throughout the entire supply chain. Entrepreneurs should establish win-win relationships with customers, and especially with suppliers' technology, services, and products, including MSMEs.

Different stakeholders in the value chain can work together to co-create solutions, sharing risks and forging opportunities. For instance, collaboration with global multinationals can help MSMEs gain faster access to markets. At the same time, corporate venturing can accelerate business turnaround for multinationals by implementing new business model solutions that have first been developed by Micro, Small, and Medium Enterprises (MSMEs).

Circularity is based on value creation. Therefore, a shared notion of how to accelerate the circular transition must be collectively established by policymakers, financial industry regulators, and financial institutions in order to redefine concepts of material value; understand circularity's key approaches for designing out waste; identify new elements for risk assessment; and design business model opportunities. **Developing a common taxonomy for circular finance adapted to LAC economies is an important step, which is one of the study's key recommendations currently underway, but which needs further attention and encouragement.** This should be a joint effort involving different stakeholders, as it is critical to engage and include all stakeholders in the value chain to work together when redefining roles and responsibilities.

Public policies, financial regulations and incentives must encourage companies to move their investments toward circular business models instead of conventional ones. Financial institutions can shift the balance towards circular projects by phasing out incentives for non-circular products, creating attractive loan conditions, and developing purchase guarantees that can mitigate risks. **Policies alone are not enough, however, and supporting tools, capacity building programs, and international knowledge exchange are all essential for moving from theory to practice.**

Local and regional development banks and multilateral organizations all play a crucial role in paving the way to structured blending finance, guarantees, and mezzanine instruments in circular economy projects that can leverage commercial banks. The circular finance ecosystem mentioned before is essential to building financial institutions' capacities, raising financial clients' awareness, and contributing to policy framework development.

To finalize, this study evaluated existing regional biodiversity conditions, the lack of current infrastructure for waste valorization, and present challenges for consumer engagement, recommending four priority areas in four high-level circular economy business models, and demonstrating which areas offer the most significant potential for leveraging circular businesses in LAC.

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Introduction

The current linear economy has brought us technological innovation, convenience, and new products and services, but has also left us with significant negative externalities at all stages of the value chain, which have resulted in high costs to society, greenhouse gas (GHG) emissions, pollution, biodiversity loss and water stress (United Nations Development Programme [UNDP] 2022), and which together form the basis of the current triple planetary crisis afflicting the climate, nature and pollution (United Nations Environmental Programme [UNEP] 2022). The latest report of the Intergovernmental Panel on Climate Change (IPCC), published in August 2021, shows that the goal of limiting the advance of global warming to 1.5°C by the end of the century is becoming increasingly difficult to achieve.

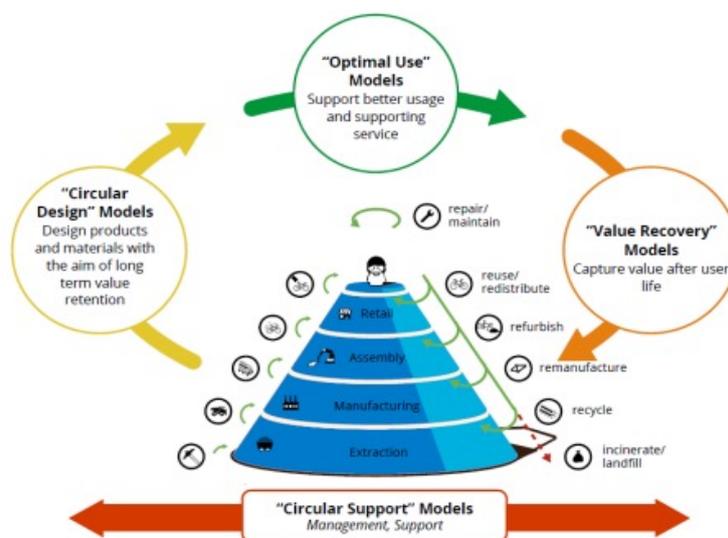
As presented by the Ellen MacArthur Foundation (2021a), an energy transition and energy efficiency processes are only capable of mitigating 55% of GHG emissions, given that solely focusing on the energy transition is not enough to achieve the aspired zero-emissions targets in coming decades. Remaining emissions are derived from products and services used in our daily lives. Therefore, **transitioning to a circular economy (CE) business model in order to transform the way we produce and use goods is crucial to meeting Paris Agreement objectives, reducing the emissions gap, minimizing the temperature rise and reaching the Sustainable Development Goals (SDG).** (Kruchten and Eijk 2020).

A CE-oriented approach effectively extends the life cycle for materials, designs out waste, increases resource efficiency, and achieves a better balance between economic activity, environmental protection and social well-being, as an alternative model for development that tackles the three planetary crises. The Ellen MacArthur Foundation (2019) has established three design-driven guiding principles to address the challenges and opportunities presented by a transition to the circular economy:

- Eliminate waste and pollution
- Circulate products and materials (at their highest value)
- Regenerate nature

From a transition perspective, traditional businesses need to adapt and develop new strategies in order to become part of the circular economy. In this way, reference is often made to four circular business model categories, each of which focuses on a different phase of the value chain: (a) Circular design; (b) Optimal use; (c) Value recovery phase (or after-use phase); and (d) Circular support. These different Circular Economy business models can be illustrated in what is called a Value Hill, as shown in the figure below:

Figure I.1: Different Circular Economy business models in the Value Hill



Source: Achterberg, Hinfelaar, and Bocken (2016).

What is common to circular businesses is that they must contribute, directly or indirectly, to increasing resource efficiency and decreasing environmental impact across the four main groups of value chains. **This conceptual framework could help to better identify circular business models.**

Circularity is a term commonly used to indicate the adoption of “R-behaviors”, otherwise known as the 9R framework, which promote a transition to the circular economy (UNEP FI 2020). The term also helps to define which practices should be adopted in a business transition path. Common economic behaviors associated with the circularity approach are outlined by the United Nations Environment Programme (UNEP) in a 9-R concept adapted from Potting *et al.* (2017, p.5) as a proxy for a Circular Economy definition, as shown below:

- **Reduce** by increasing resource efficiency during manufacturing or using fewer natural resources.
- **Refuse** and abandon the use of a resource or product through elimination without losing function.
- **Redesign** the product or service as a product-as-a-service or by sharing business models.
- **Reuse** of a product that is still functioning for its original purpose.
- **Repair** a product in disrepair so it can be reused for its original purpose.
- **Refurbish**, restore and increase the quality of an otherwise obsolete product to quality standard.
- **Remanufacture** used parts into a just-as-new condition through a combination of parts.
- **Repurpose**: Use a redundant product considered to be waste by reprocessing and giving it a different function.
- **Recycle**: Recover materials from waste to be reprocessed as inputs for production, excluding energy recovery.¹

¹ According to UNEP “Energy recovery can be considered if none of the other options are available and if it avoids inputs of new raw materials for energy production”.

The 9R framework was designed to observe how businesses apply the principles and characteristics of the circular economy and to assesses their circularity, especially regarding the maintenance and cascading of the value of products and components.

Box 1: Energy recovery: Is this circular or not?

Remining and recovery of energy are processes used in some countries to manage waste, but the value of the material is consumed once and not put back into the loop. These processes are therefore not included as part of the 9R framework, nor further developed by the UNEP Circularity Platform. Moreover, the Ellen MacArthur Foundation does not consider energy recovery as part of a circular model, instead treating it as leakage to be minimized. However, energy recovery could be an environmentally preferable option to landfill disposal in accordance with the waste hierarchy principle. The use of landfill gas (LFG) in Latin America could contribute substantially to climate change mitigation by displacing the consumption of fossil fuels and reducing emissions. Moreover, the recovery of energy from organic waste could also reduce environmental impacts, generate new jobs and contribute to higher recycling levels.

Further analysis is needed into the differences between the Latin American and European realities on municipal solid waste and the landfill environment, considering the influence they have on methane gas generation and the options for gas extraction and cleaning methods. Using landfill gas (LFG) in Latin America could generate alternative energy, therefore reducing methane emissions and resulting in positive outcomes for local communities and the environment. LFG utilization projects create partnerships among citizens, nonprofit organizations, local governments, and industry in sustainable community planning.

The benefits of LFG energy projects include reduction of greenhouse gas emissions (GHG), reduction of air pollution by offsetting the use of non-renewable resources, creation of health and safety benefits, and reduction of environmental compliance costs.

Source: United States Environmental Protection Agency (EPA) (2022).

Financial institutions are already encouraged to take into account the priorities embedded into the UN Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change when considering their approach to resource efficiency and the circular economy (UNEP FI 2021). Circular economy business models should also be seen as part of the portfolio pathway to promoting businesses that offer products and services designed to reduce the emissions gap and minimize the temperature rise.

Circular economy strategies can also lower investment risk and drive superior risk-adjusted returns. A study carried out by Bocconi University of 200+ listed European companies has demonstrated how the adoption of circular practices increases resilience through business model diversification, decoupling economic growth from resource use, and environmental impact, as well as improving business owners' capacity to anticipate stricter regulations and changing customer preferences (Bocconi University, Ellen MacArthur Foundation and Intesa Sanpaolo 2021).

Some institutions have started measuring and monitoring the alignment of their portfolios, defining indicators and considering how to align their financing with the Paris Agreement, while avoiding an excessive build-up of transition risks (European Central Bank [ECB] 2021). However, there are some challenges in this process, such as a lack of common taxonomy and KPIs and the ensuing impact on transparency; a weak or total lack of regulation and suitable enabling conditions.

Therefore, in a context where there is little clarity among key stakeholders surrounding the definition of circular economy, and with most countries in Latin America and the Caribbean (LAC) still lacking sufficient legal frameworks to promote circular businesses, **there is a huge opportunity for financial institutions to design instruments capable of accelerating the transition.** Alongside efforts to create a pipeline of circular projects, with new models for the provision of insurance and credit, financial institutions must promote capacity-building among business leaders so they can truly develop and implement circular solutions. Therefore, a close analysis of the applicable legal framework is an integral part of assessing the viability of resource efficiency and circular economy investment projects.

This report aims to present the main findings on how to accelerate the circular economy transition in LAC, including existing legal and financial aspects; learnings from international benchmarks that assist in evaluating the adaptation of practices; as well as interviews and validation sessions with key local stakeholders to present recommendations that correctly identify and address gaps and barriers for public policies and financial institutions in Latin America and the Caribbean.

Dialogues with key stakeholders were also part of raising awareness and enriching the findings and recommendations. An interest group was formed to take an active role in providing critical feedback on the report, concurrently helping set the foundations for the circular economy stakeholder network in Latin America and the Caribbean. To this end, three (3) interest group meetings were held, where members were able to comment on the ongoing developments of the research, provide feedback and engage in group discussions. The group consists of 15 institutions, stemming from all seven (7) nations that were the object of the study. It was equally well represented by sector, as were present commercial and public development banks, an environmental ministry, an industrial syndicate and business and educational associations.

The analysis was conducted in seven (7) LAC countries (Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Mexico and Peru), focusing mainly on national policies, strategies, frameworks, and other relevant documents. The countries were selected due to their existing relevant engagement in circular discussions and the identification of a need to protect their natural ecosystems. Discussions held with key government officials and stakeholders, including financial institutions and financial industry regulators, helped to gain perspective on broader political and investment environments, which are necessary to foster circular finance in the region, and the issues surrounding them.

For the financial market, the transition towards a resource-efficient and circular economy is a learning journey, and financial institutions are at different levels of maturity in terms of understanding, awareness, and financing of resource efficiency and the circular economy. The transition should be developed in line with a financial institution's operating context and driven by the circular economy framework and sustainable finance guidelines, such as the Principles for Responsible Investment (PRI),² the Principles for Responsible Banking (PRB)³ and the Principles for Sustainable Insurance (PSI).⁴ For this purpose, UNEP-Fi published the Guidance for Banks (2021) in order to support banks in their circular targets and analyses concerning global priorities, any local needs in a given bank's specific location, and sectorial opportunities.

The circular economy demands a broader view of value generation, new risk assessment formats, long-term thinking, collaborative efforts, and the need to expand project evaluation methodology so that it guarantees predictability and transparency. These crucial elements are usually invoked by banks for defining risks and return rates. The same approach should be applied when designing and implementing circular economy businesses models and systemic multi-stakeholder projects.

In this study, new boundaries outlining the investment landscape for the circular economy in LAC have been mapped, revealing the key aspects needed to accelerate the transition to a sustainable and inclusive future while generating value for all.

2 [Principles for Responsible Investment \(PRI\)](#).

3 [Principles for Responsible Banking \(PRB\)](#).

4 [Principles for Sustainable Insurance \(PSI\)](#).

1. What is the required legislative landscape for promoting the circular economy in LAC?

Background information

In recent years, the circular economy model has gained high-level political attention and support in Latin America and the Caribbean (LAC), with more than 80 related public initiatives mapped in 2019. In Latin America and the Caribbean, the circular economy provides ample development opportunities, both in terms of creating new economic activities linked to the provision of environmental goods and services, as well as for transforming pre-existing economic activities so as to increase their resource efficiency and reduce their environmental impact.

In the Latin American region, the transition to circularity has the potential to generate 4.8 million new jobs by 2030 (Saget, Vogt-Schilb, and Luu 2020), while simultaneously reducing dependence on imports and exports of oil, metals and minerals, mitigating exposure to exchange rate fluctuations with the creation of marketplaces for secondary materials, and generating new opportunities for circular business.

Most investigated countries have included circular economy elements in their national development plans and their environment and climate programs, including developing targets for the recycling and reuse of waste materials. Moreover, governments from some of the countries, such as Chile and Costa Rica, are linking circular economy and climate action plans to promote innovation and job creation by shifting to a circular economy. As a result, critical national stakeholders are brought together to participate in the circular debate. The inclusion of the circular economy as a critical topic in multi-lateral issues, the publication of roadmaps and national strategies for circular transition, and the formalization of commitments are all initiatives that denote the growing importance of the topic for the region.

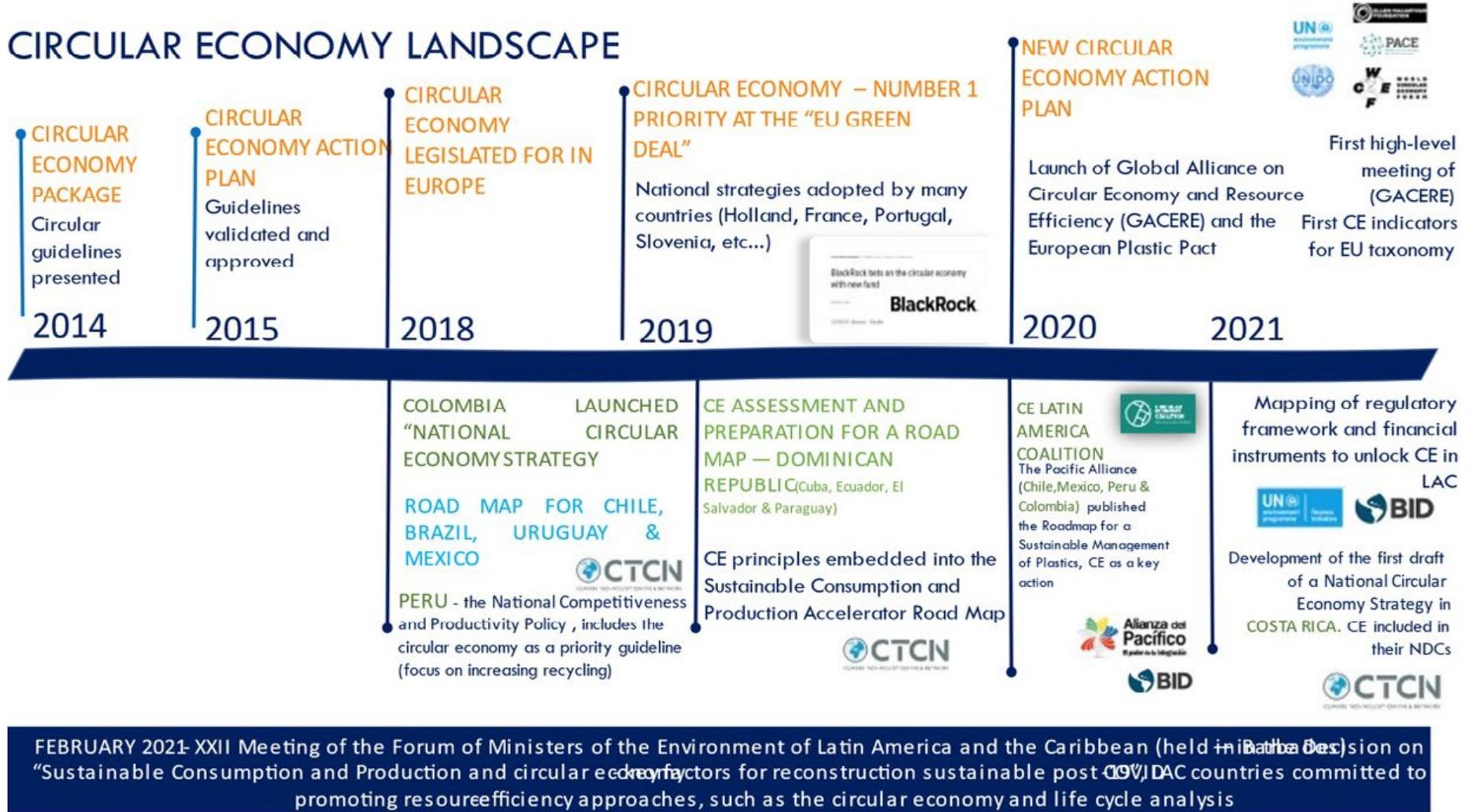
Global trends⁵ have paved the way for circular economies in LAC in terms of public policy and regulatory frameworks, encouraging the world's largest single market area transition towards the circular economy (European Commission 2020b). In parallel, the COVID-19 pandemic has revealed significant shortcomings in the linear economy, notably the vulnerability of global value chains, the depletion of natural resources, and the exacerbation of social inequalities (Schröder *et al.* 2020).

The Circular Economy Coalition for Latin America and the Caribbean (LAC), a new initiative to support the region in its transition to the circular economy, was launched as part of the COVID-19 recovery. For the 2021–2022 period, the Coalition will be led by Colombia, Costa Rica, Peru and the Dominican Republic, together with strategic partners: the Inter-American Development Bank (IDB), the Ellen MacArthur Foundation, the World Economic Forum (WEF), the Konrad Adenauer Foundation, the United Nations Industrial Development Organization, the Climate Technology Centre & Network, the Platform for Accelerating the Circular Economy Coalition and UNEP (Circular Economy Coalition 2021).

Figure 1.1 presents a timeline summarizing global and regional progress and demonstrating how robust public policies can promote practices that encompass design, innovation, and value retention processes, such as those allowing the reduction, reuse, repair, repurpose, recovery and recycling of materials throughout the value chain.

5 Examples of global trends include the European Commission's decision to legislate for the circular economy in 2018, making it the number one priority in 2019 for regional development as part of the EU Green Deal and its considerable impact on the global materials supply chain; The "Circular Economy Package", approved by the EU Council on 22 May 2018, proposed new guidelines on waste, landfills, packaging, vehicles and electrical and electronic waste equipment and batteries. This package, containing legislative and non-legislative initiatives, is known as the European Circular Economy Action Plan (CEAP). Other drivers for the incorporation of the circular economy in the LAC legislative framework involve opportunities for international financial support; the creation of a Technical Committee by the International Standardization Organization dedicated to the subject (ISO TC 323), with implications at the institutional level; and the proximity of some LAC countries to the Organisation for Economic Co-operation and Development (OECD).

Figure 1.1: Circular Economy Landmarks Timeline



Source: Developed by the authors

Policymakers could set a new precedent where circular economy business models are the new norm by developing new policies and amending existing approaches to ensure their alignment with circular economy principles (Ellen MacArthur Foundation 2021b). This would reinforce and support other public policy levers, such as regulations that affect urban planning process (Ellen MacArthur Foundation 2019). The challenge of implementing a systemic transition that cuts across multiple domestic and international policy areas, and ministerial or departmental remits, should not be underestimated. This is especially the case in LAC, where a range of different schemes are triggering circular economy innovations: startups acceleration programs, entrepreneurship initiatives supported by large global companies, innovation calls to small and medium businesses aiming at promoting competitive advantage, as well as a direct demand for international compliance or guidance from multinationals' headquarters.

Based on that scenario, a review of the general legislative framework of the seven pre-selected countries in Latin America and the Caribbean was conducted (Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Mexico and Peru), designed to identify the leverage points for including circular economy principles in diverse legal instruments, either by adapting and updating existing legislative frameworks, or by creating new national road maps, strategies and/or circular commitments.

Legislative framework: an exploratory analysis

The mapping exercise conducted to identify existing legislation in Latin America and the Caribbean has detected a variety of frameworks that accelerate the circular economy. Aiming to accommodate socio-political variations between each country, while maintaining the circularity approach as the key driver, the analysis considered three different legislation groups (details concerning analysis groups and policy descriptions are presented in Annex 1):

The first group (National Frameworks on Circular Economy) demonstrates a high-level commitment to Circular Economy principles. In this group, circular economy concepts are explicit in new pieces of legislative framework. We have identified CE-focused programs, national laws and policies that incorporate socio-political variations, and bioeconomy and climate-related frameworks.

The second group (Policies for the circulation of products and materials) includes frameworks that assess product and service design geared towards the transition. Extended Producer Responsibility (EPR) rules are also included in this group, demonstrating that a country is looking beyond waste management and recycling frameworks.

The third group (Waste management and pollution reduction policies) highlights legislative frameworks based on waste management infrastructure and recycling rates, which may mention the circular economy, but do not necessarily display a broad or clear view of the concept.

This analysis has shown that in order to harness public policies' potential to achieve the scale needed for a successful circular economy transition in Latin America and the Caribbean, both a shared understanding of the systemic nature of the opportunity and a common direction are required, and fragmented or partial solutions should be avoided.

Therefore, in the interests of generating the necessary conditions to promote innovation, investment, eco-competitiveness, and resilience to climate change with a circular economy approach, a number of elements must be properly optimized, including existing environmental recognition schemes, carbon neutrality plans, environmental certification and resource efficiency-related incentives for production that are adapted to climate change and regenerative practices.

Table 1.1 summarizes the results of the investigation of public policies and legal instruments related to the circular economy and its three leverage groups, as outlined earlier in this chapter and according to the labeling system:

The following results are detailed by country, with highlights concerning the most prominent moves being made towards a circular economy legislative framework.

Table 1.1: Results of the investigation of public policies and legal instruments that promote the circular economy, by leverage group of analysis

	Country						
	Brazil	Chile	Colombia	Costa Rica	Dominican Republic	Mexico	Peru
National frameworks on Circular Economy							
National Vision, plan or law on Circular Economy	!	✓	✓	!	!	✓	✓
CE 2020 NDC's inclusion	✗	✓	✓	✓	✓	✓	✗
Other national plans, strategies and laws mentioning CE concept	!	✓	✓	✓	✓	✓	✓
Participation in CE Coalition for LAC	✗	✓	✓	✓	✓	✓	✓
Policies for the circulation of							
Sustainable production and consumption policies	✓	✓	✓	✓	✓	✓	✓
Extended Producer Responsibility (EP) Legislation	✓	✓	✓	✓	✓	✓	✓
Waste management & pollution reduction							
Waste management	✓	✓	✓	✓	✓	✓	✓
Plastic ban	!	✓	✓	✓	✗	!	✓

 **Green:** demonstrates the availability of a circular economy instrument, including circularity implementation measures in terms of leadership, goals, and indicators.

 **Blue:** demonstrates the availability of a formal instrument in the country, but no current circularity implementation measures.

 **Yellow:** discussions have started, but instruments are still under development.

 **Red:** research did not identify any instrument or policy-related material to date.

Source: Developed by the authors

An overview per country

Each of the seven countries investigated as part of this research have demonstrated a particular path towards circular transition. Key highlights are demonstrated below:

Brazil

High potential for a successful circular economy transition and presents new opportunities for green recovery, with significant resources available to generate renewable energy and bio-based materials capable of contributing to climate change mitigation. Despite this high potential, however, there is uncertainty in terms of environmental safeguards (Konrad-Adenauer Stiftung 2021) and systemic factors that limit innovation—economic cycles, political and economic instability-, and a deficit in the transfer of new knowledge, as well as a lack of human capital.

- The country remains the **greatest research producer** on the circular economy in LAC (Martínez, Henríquez and Freire 2019). Brazil also figures as the only LAC country among all 25 countries with the most significant publication rates on the subject in the world.
- Between 2019 and 2021, the Ministry of Science, Technology and Innovation and the Climate Technology Centre and Network (CTCN) collaborated on a **study regarding the current state of the circular economy with a view to developing a Roadmap for Brazil** (United Nations, Climate Technology Centre and Network 2021). The analysis delivered a vision for implementing a circular economy model in the country.
- Over the past few years, discussions in the country have been industry-led, with the topic being incorporated into the **Strategic National Industry Map 2018–2022** (Confederação Nacional da Indústria [CNI] 2018). The main activities to date among the National Industry Confederation (CNI) have included identifying current practices related to circular economy principles in their priority agenda for 2021, with reference to the aim of developing guidelines for a National Circular Economic Policy.
- In a first attempt at developing a public policy explicitly mentioning the circular economy, in 2020, the Ministry of Science, Technology and Innovation (MCTI) published an ordinance instituting the MCTI **Bioeconomy Productive Chains Program** (Brazil, Ministry of Science, Technology and Innovation 2020).
- Brazil has a Shared Responsibility system, established through the **National Policy on Solid Waste Management** (Brazil, 2010) which may be considered as an Extended Producer Responsibility (EPR) policy as it includes sectoral guidelines that promote the collection of certain types of materials,⁶ the use of biodegradable plastic, and the avoidance of hazardous materials in product design to make material recovery more effective.
- As an attempt towards the implementation of the National Policy on Solid Waste Management, the federal government launched the **National Zero Landfill Program** (Brazil, Ministry of Environment 2019), designed to eliminate existing waste dumps and support municipalities to create more adequate solid waste disposal solutions, with a focus on strengthening integrated management, selective collection, recycling, reverse logistics, energy recovery, and environmentally sound disposal of tailings.

6 See the Brazilian platform SINIR

- Additional capacity building is still needed to better *understand* the circular benefits among industrial players, governments agencies, and financial institutions.

Chile

The circular economy paradigm proposes a sustainable and inclusive development agenda that presents enormous opportunities for Chile. Indeed, the country has already strongly embraced this agenda: the inclusion of circular economy perspectives in the climate agenda, the Extended Producer Responsibility (EPR) laws, and the regulation of the waste management chain, especially for single-use plastics, are all examples of this.⁷ Chile has taken its first steps by applying incentives for innovation projects with a circular economy focus, and creating jobs in new markets for managing priority products, which represents an additional opportunity to fully incorporate grassroots recyclers into the economy, raising labor and living standards.

- **Chile's Nationally Determined Contributions (NDCs)** update in (Chile 2020) incorporates a new integration component encompassing the role of oceans, the circular economy, forests and ecosystems as elements that holistically contribute to tackling the causes, effects and impacts of climate change. **Circular economy indicators and metrics** are included in the country's **NDC** under the Paris Agreement for the first time.
- The **National Circular Economy Roadmap 2020–2040** (Chile, Ministry of Environment 2020a) is a long-term planning instrument with a participatory process that serves as a basis for promoting the circular transition. It seeks to connect key actors in an effort to imagine the “Circular Chile” of the future, which will be capable of identifying the changes that need to be made, and designing the actions to achieve them.
- Within the framework of the national roadmap defined by the Ministry of the Environment, construction leads the actions of the private sector, promoting changes that will serve as a reference for other industries and unions. The **Construction and Demolition Waste (RCD) National Strategy for 2035** (Chile, Chilean National Development Agency 2020) seeks to resolve the problems derived from the high waste generation of RCD, reducing the extraction of raw materials from the environment.
- The **National Strategy on Organic Waste** (Chile, Ministry of Environment 2021) was created to deal with the country's particularities. It was developed in keeping with the Circular Economy roadmap, in an attempt to improve recognition of the value of this type of waste generated at municipal level. It seeks to optimize the processes of collection and handling of organic waste, avoiding landfills or sanitary landfills, and thus reducing the uncontrolled emissions of greenhouse gases.
- The **first Chilean national policy regarding Extended Producer Responsibility was officially published in 2015** as the Waste Management, Extended Producer Responsibility, and Recycling Incentives Act (Chile, Ministry of Environment 2015), known as “Ley REP.” The Extended Producer Responsibility Law also contains a recycling fund “Fondo para el Reciclaje”, which is intended for recycling projects run by municipalities or associations.

⁷ Chilean Government Initiatives at [Ministerio de Medio Ambiente—Economía Circular](#)

- In August 2018, Chile published the law N 21100 with the intention of setting a framework to **phase out single-use plastic bags** distributed by businesses (Chile, Ministry of Environment 2018). By August 2020, the ban on issuing plastic bags extended from large companies to micro, small and medium-sized companies, thus effectively applying to everyone.
- **Policy for the Inclusion of Waste Pickers:** seeks to promote the social, economic, and environmental inclusion of informal workers in environmentally sound waste management, especially women, who account for 60 percent of the members of the National Association of Recyclers of Chile (Chile, Ministry of Environment (2020b)). The first edition of the policy (Chile, Ministry of Environment 2016) was updated for the 2020–2021 period by the **Office of Legislative Implementation and Circular Economy**.

Colombia

The circular economy has presented a long-term transition opportunity for Colombia, and the federal government has embraced it, developing several Circular Economy and bioeconomy strategies. Circular economy approaches have been integrated into relevant policy processes, including sustainable tourism, climate change mitigation in the industrial sector, construction and demolition waste, and water reuse. The Colombian government also actively encouraged knowledge sharing to enable the transition, signing a national Circular Economy pact and becoming signatory to other relevant regional alliances. The country's circular economy approach is expected to reduce the burden on sanitary landfills, which is of great importance, considering that the valuable life of hygienic landfills in 321 municipalities in Colombia will end until 2023, according to data from the Colombian National Planning Department (2016).

- After hosting the first Circular Economy Forum of the Americas in Medellín, in 2017, Colombia was the first country in Latin America to adopt a **National Circular Economy Strategy in 2018** (Colombia 2019a). The strategy seeks to promote the productive transformation required to maximize the added value of industrial and agricultural systems and sustainable cities in economic, environmental and social terms, based on circularity, technological innovation and collaboration in new business models.
- Although still under development, **the circular economy is recognized in Colombia's NDC update** (Colombia 2020) as a critical tool in the mitigation of Greenhouse gases emissions, and included in both the **Colombian Green Growth Policy** (Colombia, National Council for Economic and Social Policy [CONPES] 2018) and the 2018–2022 **National Development Plan** (Colombia, National Planning Department 2019). According to the World Wide Fund for Nature's (WWF) Checklist for the NDCs, which aims to shine a spotlight on progress, encourage best practices, identify key challenges and call out laggards, the country's 2020 NDC is an NDC that We Want.⁸
- Colombia was one of the first countries to adopt **EPR policies** (OCDE 2016), implementing an EPR scheme to manage several end-of-life products. Specific resolutions regulate separate waste collection schemes under the EPR principle, including four resolutions focusing on Waste Electrical and Electronic Equipment (WEEE) streams

8 See the complete list and criteria at [WWF. NDCs that we want.](#)

issued in 2010 and implemented from 2011. Colombia has an EPR bill that pertains to the collection and treatment of packaging waste by waste management systems (Colombia, Ministry of the Environment, Housing and Territorial Development 2010)

- The **National Policy for the Integral Management of Solid Waste** (CONPES 2016) is designed to contribute to the transition from a linear model towards the circular economy where, by making use of the hierarchy in waste management, aligned with the 9R framework, the generation of waste and the use of resources is to be optimized.
- The National Strategy on Circular Economy (called ENEC) enabled the formulation of the **Plan for the Sustainable Management of Single-Use Plastic**, with actions aimed at the substitution of materials and geared towards promoting reusable products from recycled raw material that are biodegradable, compostable, or that have been manufactured or marketed by companies capable of demonstrating their recycling or reuse practices according to established goals (Colombia, Ministry of Environment and Sustainable Development 2021).

Costa Rica

The country stands out in the region for its leadership on actions to advance the circular economy, particularly in the context of its incorporation into the OECD and into international climate agreements, moving towards the inclusion of the strategy in its economic development plan. Actions led by Costa Rica include regulatory aspects and incentive programs that seek to establish a framework for the management of waste, the extended responsibility of the productive sector, the promotion of recycling, and the reuse and recovery of waste (Costa Rica, Ministry of National Planning and Economic Policy 2020a). Decentralized governments face several barriers to being able to properly implement these actions, including limited capacities to integrate executive mandates related to the circular economy in planning processes and budget allocation.

- The actions listed in the country's **National Decarbonization Plan** (Costa Rica, Ministry of Environment and Energy 2018) include designing strategies to attract direct foreign investment from companies that promote linkages and consolidate innovation ecosystems in key areas, such as electric mobility, digitalization, data centers, intelligent cities, circular economy and climate-smart agriculture. According to the WWF's Checklist for the NDCs, the country's 2020 NDC is an NDC We Want.⁹
- Costa Rica commits itself to its **Nationally Determined Contribution 2020** (Costa Rica, Ministry of Environment and Energy 2020b) in four of seven lines of action that directly promote the circular economy: (i) Infrastructure and construction; (ii) Industry, commerce and services; (iii) Integrated waste management; and (iv) Agriculture.
- Costa Rica has established a partnership with the **Climate Technology Centre and Network (CTCN) for technical assistance in the development and validation of a National Circular Economy Strategy** to support the transition in Costa Rica, along with monitoring indicators and a national baseline. The strategy proposes an outreach and training program to guide municipalities in using the step-by-step guide and

⁹ See the complete list and criteria at [WWF. NDCs that we want.](#)

develop recommendations for updating and implementing criteria for the incorporation of the circular economy into national programs (United Nations, Climate Technology Centre and Network 2017).

- Costa Rica is a governing member and part of the **Steering Committee** for the LAC Circular Economy Coalition;
- The **National Strategy for the Separation, Recovery and Valorization of Waste** (ENSRVR) is the organized way in which the country recycles, separates, recovers and values waste at the level of households, educational centers, companies, and organizations (Costa Rica, Ministry of Health 2016). To transfer the cost of waste collection and treatment to its producers or importers, Costa Rica implements EPR for 15 waste streams, including waste from electrical and electronic equipment (WEEE), tires, batteries, waste oils, light bulbs, and, since 2019, end-of-life vehicles (OECD 2020).
- The **National Strategy for the Substitution of Single-Use Plastics** (Costa Rica 2017) by renewable and compostable alternatives is part of the National Plan for Integrated Waste Management (Costa Rica, Ministry of Health 2010), providing a scheme for voluntary action.

Dominican Republic

The protection of the environment and of natural resources remains a central focus for the Dominican Republic. Companies, communities, business organizations, local governments, the media, multilateral organizations, regional entities and political leaders have all put the issue firmly on the agenda. The adoption of circular economy policies and the use of biodegradable products now feature more heavily in municipal development plans, especially those of the private sector (El Dinero 2019). However, the country still faces challenges for proper enterprise development. Although the government's efforts to support new business initiatives are present and explicit in the development of the circular economy model (Dominican Republic, Ministry of Environment and Natural Resources 2021), many ventures have a low survival rate in the medium and long term due to systemic conditions that limit entrepreneurship, such as high tax rates, high informality, bureaucracy and access to financing, especially concerning MSMEs.

- The country's Nationally Determined Contribution (Dominican Republic 2020a) presents a vital adaptation component and mentions circular economy as guidance and motivation, but without providing specific goals and metrics at the moment. According to the WWF's Checklist for the NDCs, **the country's 2020 NDC is an NDC We Want**.¹⁰
- In the **Sustainable Consumption and Production Accelerator Roadmap** (Dominican Republic, SDG Commission 2020) the Dominican Republic's main circular economy objectives include creating a database for material recovery among industrial players and developing a promotion strategy.
- The Country has been assessing **the status of the Circular Economy** since 2019 through the development of a roadmap, in partnership with the Climate Technology Centre and Network (CTCN).

¹⁰ See the complete list and criteria at [WWF. NDCs that we want.](#)

- The Dominican Republic is a governing member and part of the **Steering Committee** for the LAC Circular Economy Coalition.
- Promulgated in 2020, the **General Law of Integral Management and Co-processing of Solid Waste (GIRS)** (Dominican Republic 2020b) aims to prevent the generation of waste and establish the legal regime for its integral management, promoting reduction, reuse, recycling, use and recovery, which will facilitate the transition from a linear to a circular economy.
- The **General Law of Integral Management and Co-processing of Solid Waste (GIRS)** (Dominican Republic 2020b) addresses various provisions on Extended Producer Responsibility. A unique contribution as part of an EPR-like bill for waste management has also been established and is to be levied on every legal entity and public institution. The intention is to create a fund for mitigating the adverse effects of the current waste disposal, establish post-consumer plans, and develop an integrated waste management system by the income corresponding to the fiscal year.
- Legal entities that invest in both material and energy recovery plants may benefit from the **incentive regime established** by GIRS law, which will be valid for five years from the date of its enactment, including 100% exemption from income tax (ISR) (excluding dividends), 100% exemption from asset taxes, and exoneration of 100% of the tariffs and the tax on the transfer of industrialized goods and services (ITBIS) (Bonetti, Bonetti and Bonetti 2020).

Mexico

Different Federative Entities and cities in Mexico have already started to include circular economy in their local development plans as an inspirational vision or legal directive (El País 2020, Fundación Cristina Cortinas 2021). The current challenge is to structure mechanisms that coordinate the municipal, state and federal authorities attempting to foster the creation of the circular economy in the country.

- In the **Mexican NDC** update (Mexico, Secretary of Environment and Natural Resources 2020a), a National Circular Economy Strategy is mentioned. This initiative presents an opportunity for cross-sectoral approaches that encompass the entire production system in an attempt to promote the circular economy by recognizing the externalities of the processes employed, and at the same time optimizing the use of inputs and energy required.
- In October 2019, an initiative was launched to create a circular economy law, with the intention of establishing a general regulatory framework that facilitates the transition towards a Circular Economy model (Preciado, Beltrán and Díaz 2021). In 2020, the Circular Economy Forum took place at the Senate of the Republic, during which more in-depth discussions on what Mexico's circular economy scheme might look like took place. In November 2021, the Chamber of Senators approved the **General Circular Economy Law** (Mexico, Senate of the Republic 2021) which is responsible for promoting a larger number of improved rules for new production schemes at the industrial level, and establishing the bases for the federation, states and municipalities to move towards the circular economy.

- Mexico is a governing member of the LAC Circular Economy Coalition.
- Although EPR is not explicitly mentioned in current legislation, it can be associated with the “principle of shared responsibility” between the government, society and industry, as in the **General Law for the Prevention and Integral Management of Solid Waste** (Mexico 2015). EPR itself has been mentioned and included in some proposed bills and initiatives, which were presented in 2019 by legislators from different parliamentary groups (World Resources Institute [WRI] Mexico 2020).
- In the **Environment and Natural Resources Sectorial Program 2020–2024** (Mexico, Secretary of Environment and Natural Resources, 2020), derived from the National Development Plan (Mexico 2019), priority actions and goals include promoting the circular economy through a focus on the life cycle of goods and services in production chains (Mexico, Chamber of Deputies 2021), as well as employing the Circular Economy approach to establish, strengthen and promote policy and regulatory instruments for the reduction of GHG emissions in strategic sectors in order to meet national and international climate change goals.
- The **National Vision Towards Sustainable Management—Zero Waste** (Mexico, Secretary of Environment and Natural Resources 2019) published by the Secretariat of the Environment and Natural Resources in 2019 includes the circular economy as one of its guiding principles. There is no federal or general law that prohibits the use of plastic bags (Mexico City 2020), however, most of the Federal Entities have already legislated on the matter. At a state level, 30 of the 32 Mexican States have legislated on the reduction, substitution and elimination of plastics (Mexico, Chamber of Deputies 2019; Diario Juridico 2020).

Peru

The country has adopted the circular economy approach in an effort to address the set of negative and avoidable environmental consequences related to the linear model of production (PAGE 2015, NIRAS 2021). Since 2017, the government has developed recommendations for a **National Green Industrial Policy**, which has in turn informed the **National Productivity and Competitiveness Plan** (Government of Peru, National Council of Competitiveness and Formalization 2019). The latter outlines the priority guidelines for strengthening the institutional framework designed to create the conditions for transitioning to the circular economy (El Peruano 2020a). Initially adopted in the industrial sector, this approach promotes best practices in the generation and management of industrial waste, as well as the design of mechanisms to promote innovative initiatives and clean technologies.

- Peru has been a promoter and pioneer in incorporating the climate change adaptation component as part of its NDC since COP 20, held in Lima, Peru, in 2014. **Peru’s updated NDC from 2020 presents a strong adaptation component**, in which the country is committed to increasing its adaptive capacity, strengthening resilience and reducing climate change vulnerability to contribute to sustainable development, however, there is no direct link to the circular economy specified (Peru 2020).

- Since February 2020, the **Roadmap towards the Circular Economy in the Industry Sector** (Peru, Ministry of Environment 2020a) has been underway, an initiative developed jointly by the Ministry of Production (PRODUCE) and the Ministry of the Environment (MINAM), aimed at progressively adapting linear production processes to the principles of the circular economy.
- Within the framework of the Circular Economy Roadmap for Industry, the Peruvian Ministry of the Environment (MINAM) is responsible for promoting the signing of **Clean Production Agreements** (Government of Peru 2020b) which promote the minimization of waste, reuse and recycling within the framework of industrial sector regulations.
- In 2021, the **Roadmap towards the Circular Economy in the Agricultural and Irrigation Sector** was approved (Peru, Ministry of Agrarian Development and Irrigation 2021). It promotes agrarian development with an ecologically friendly approach to favor the agri-food sector.
- Peru is a government member and part of the **Steering Committee** for the LAC Circular Economy Coalition.
- In 2020, the country published an updated version of the **Law of Integrated Solid Waste Management** (El Peruano 2020b), which was already considered an EPR-like policy (Chamtam House 2021b) in its earlier version (Peru, Ministry of Environment 2016). It includes the obligations of each value chain actor, and states that the responsibility for the management of special municipal waste corresponds to those who generate it.
- The Peruvian Ministry of the Environment (MINAM) recently developed and approved **Law N°30884** (Peru, Ministry of Environment 2019), **which regulates single-use plastics and disposable containers** and establishes a progressive reduction of the use of polymer-based bags. The law includes two bills, one referring to the price of the bags at market value, and the other referring to a tax on the consumption of plastic bags.

Learning highlights

- The transition towards the circular economy requires several changes whereby the cooperation between government, the private sector and civil society must evolve, and **production and consumption habits must be transformed accordingly**. In terms of the legal framework required to create a positive environment for the circular economy, it is important **to recognize the complexity of the challenges faced in the political scenario, the relevance of industry as a driver for market transition, and the role of consumers**.

- The first point perceived when analyzing all countries is that **the creation of legislation on the subject does not address all the necessary changes for the transition to the circular economy** and therefore, it is imperative to adapt pre-existing environmental laws, especially where present mechanisms fail to protect and restore the natural capital.
- **An overall commitment and consensus amongst stakeholders is key** to the effectiveness and sustainability of any legal reform. Secondly, legal changes may have implications for the country and its citizens that extend well beyond the specific context of any particular project. Care needs to be taken to ensure that these principles are respected, and that they are not diluted by rushing any major legal changes due to government pressure, or pressure from international partners to establish formal agreements.
- **National Circular Economy Roadmaps or Strategies have been used by most of the countries at the forefront in this area, who have all understood that the challenge of moving towards the circular economy requires a long-range vision.** Beyond mere recycling, a Circular Economy transition demands rethinking current production and consumption models, which are based on the take-make-waste paradigm. National-level strategies are crucial to engage all stakeholders, create a common vision and understanding to level up knowledge regarding the circular economy. The incipient market of Circular Economy needs a solid base to build a path for all actors to become aware of next steps. A national vision helps to clarify the principles that must be followed and the goals of different sectors. **Such an approach should succeed in shifting public and private banks to consider dedicated circular economy funds and financial instruments. Development banks are one of the main axes for directing the financial system towards certain objectives.**
- There are many challenges and opportunities along the way. One of the main challenges is the lack of knowledge regarding the benefits of a transition to the circular economy and the parameters for circular economy business and projects evaluation. **There is a lack of definition, taxonomy and/or metrics to establish what is (or is not) the circular economy business. Business, financial institutions and project developers could find it difficult to define what is aligned with circular economy principles.**
- **One of the main opportunities is presented by the post-COVID recovery scenario, whereby the market can be stimulated, and the number of green jobs and export opportunities of value-added products and services increased.** A different development model is required, not necessarily regarding legislation, but rather moving the market dynamic toward strategic insights on the benefits of circularity practices and R-behaviors, providing investment for business change and capacity development mechanisms for the wider population and businesses.
- Progress towards circular economy development could be further enhanced by cross-sectoral strategies that provide elements to strengthen a country's economic, environmental and social development models. These should reinforce and support other public policy levers, such as regulations that affect the urban planning process. **It is**

important to include a circular perspective and adapt pre-existing environmental laws, especially where present mechanisms fail in protecting and restoring natural capital.

- Furthermore, the establishment of long-lasting partnerships has laid the ground for the development and promotion of circular economy strategies. **The active participation of several countries in the LAC Circular Economy Coalition has been vital to promoting knowledge exchange and implementing best practices for the region.** Scaling up circular economy products will require continuous collaboration for this type of platform where members can seek to implement pilots and instruments.
- **The inclusion of the circular economy in pre-existing instruments in Latin America can be a lever for the implementation of the socio-environmental agenda in its entirety.** Chile and Colombia, for example, have already included the topic in their basic normative review processes.
- The legislative scenario dedicated to promoting the circular economy in LAC denotes the opportunity for developing circular business models while addressing common challenges for the region. Within this framework, there is an opportunity for LAC to design and strengthen its own circular economy growth strategy by adapting public policies, regulations, management systems, public finances, investments and financing systems to create a suitable environment for circular economies, and enable the conditions that could facilitate a cooperative South-South¹¹ vision for inclusive, fair and sustainable development.

11 South-South cooperation refers to the technical cooperation among developing countries in the Global South. It is a tool used by the states, international organizations, academics, civil society and the private sector to collaborate and share knowledge, skills and successful initiatives in specific areas such as agricultural development, human rights, urbanization, health, climate change etc..

2. Which are the current options for financing circular business models in LAC?

Background information

Circular economy finance is growing as the financial sector allocates increasing capital to the transition process from a linear to a circular model, with a view to stimulating economic growth. For instance, the number of public equity funds focused (UNEP FI 2020) on the circular economy evolved from two (in 2018) to thirteen (in 2021), reaching US\$ 8 billion of total resources managed globally, representing a 26-fold increase since December 2019 (Bocconi University, Ellen MacArthur Foundation and Intesa Sanpaolo 2021).

Businesses are starting to realize the potential economic benefits of the circular transition including (1) enhanced resource productivity; (2) improved asset utilization; (3) strengthened customer relationships and greater revenues; (3) margin stability and improvement in quality of earnings; and (4) enhanced return on capital invested (FinanCE Working Group 2016). Moreover, besides mitigating climate change and waste, circular economy contributes to addressing other global challenges, such as biodiversity loss, social depletion, natural resource scarcity, pollution and water contamination (Ellen MacArthur Foundation 2020). These perceived outcomes make circular economy an attractive investment for both public and private capital all across the capital structure, from debt to equity (FinanCE Working Group 2016).¹²

The present chapter comprises the results of a research aimed at identifying the financial instruments and mechanisms in Latin America and the Caribbean (LAC) intended to leverage the circular economy among businesses and financiers. A benchmark study was carried out to learn from European circular finance dynamics, and to assess how tools and solutions could be adapted to the LAC reality. Research papers, publicly available reports and specialized media have been consulted, including seminal works from the United Nations Environment Programme Finance Initiative (UNEP FI): “Financing

¹² For a conceptual discussion on the financial system and financial instruments, refer to Annex 1.

Circularity: Demystifying Finance for Circular Economies”; “The circular economy in Latin America and the Caribbean: Opportunities for building resilience” from The Chatham House (Schröder *et al.* 2020); “Money makes the world go round” from the FinanCE Working Group (2016); and “Financing the Circular Economy” from the Ellen MacArthur Foundation (2020).

In turn, the LAC context has been explored through desktop research, one-to-one interviews with representatives from national and regional financial services sectors (FSS), and validation meetings held with the Interest Group formed specifically for this study.

One of the key findings was the narrow understanding of the concept of circular economy, as it is applied to most of the identified financial instruments in LAC, which were in fact allocating funds to waste management practices (recycling, reverse logistics, etc.). The different types of Circular Economy financial instruments have been presented here with an assessment of each one’s main characteristics and corresponding circularity criteria.

The financial sector must be able to visualize the positive impact of the circular economy, understand how circular business models can de-risk (Bocconi University, Ellen MacArthur Foundation and Intesa Sanpaolo 2021), investments and drive superior risk-adjusted returns in order to get more involved with the debate. Experiences from financial entities such as BlackRock and Intesa Sanpaolo provide inspiration on how financial institutions can capture circular value in three different ways: (1) the attraction of new cash inflows from investors that are willing to benefit society and the environment while getting competitive returns from their investments; (2) the generation of new businesses through CE-centered advisory services, capital raising, direct financing, new partnerships with corporate clients; and (3) the generation of competitive returns from stable longer-term margins, enhanced resource productivity and asset utilization adopted by companies in their portfolios (FinanCE Working Group 2016).

Circularity offers financiers, partners and clients a constructive new narrative for the economy, positioning the financial industry as a positive force for good. Moreover, circularity can ensure that financial institutions and their clients meet Environmental, Social and Governance (ESG) commitments and regulatory requirements, tackling both the causes and effects of climate change.

The circular finance shift: one step further towards innovation finance and green finance

Globalization brought higher levels of competitiveness, forcing companies to invest in innovation, knowledge creation and technological solutions to gain competitive advantages in dynamic business conditions (Matos, Melo and Matos 2014; Khalil and Nimmanunta 2022). In that context, the bank sector has developed the area of *innovation finance* (Alunni 2019) and more specifically *green finance*, focused on technologies that can address environmental aspects (climate change mitigation and adaptation technologies, preservation of biodiversity, pollution prevention, etc.) leading to longer-term investments in economic activities and project (European Commission 2022).

Innovation finance and **green finance** are capable of unlocking financing for new technologies that can de-risk long-term circular business models, however, in order to support a new zero-waste and zero-pollution society, they both have limitations. Circular finance requires a systemic multi-stakeholder approach, necessarily assessing **the use and after-use phase** of products, as well as the value of **secondary markets**, which can bring new financial returns and encourage financial institutions to direct efforts towards re-thinking finance, guarantees and commercial relationships.

Innovation finance

Traditionally, innovation finance is dedicated to supporting innovation through research and development funds for new technologies and products, as well as scale-up projects. The risks and uncertainties vary according to the technology maturity level and therefore different financial instruments can be applied accordingly. The most commonly used methodology to assess technology maturity level is the Technology Readiness Level (TRL) (Figure 2.1), a scale initially developed by the National Aeronautics and Space Administration (NASA), which has gained widespread acceptance across industry and government and is being used in different EU instruments.

In Brazil, for instance, funding agencies like FINEP and EMBRAPPII make use of the TRL scale for decision-making processes regarding the type of projects to be funded (also the case in Europe, e.g., Horizon 2020 work programs, such as the Draft Work Programme 2014–2015 NMP). Innovation finance involves a set of financial regulations, standards, norms, products and services aimed at enabling the devel-

opment of new products, processes and services by overcoming technological and operational risks related to the technology maturity (from basic research to commercialization).¹³

Figure 2.1: Scale used in Horizon 2020

TRL scale used in horizon 2020	
TRL Scale	Description
TRL 1	Basic principles observed
TRL 2	Technology concept formulated
TRL 3	Experimental proof of concept
TRL 4	Technological validity in a lab
TRL 5	Technology validated in relevant environment
TRL 6	Technology demonstrated in relevant environment
TRL 7	System prototype demonstration in an operational environment
TRL 8	System completed and qualified
TRL 9	Actual system proven in operational environment

Source: European Commission (2019a)

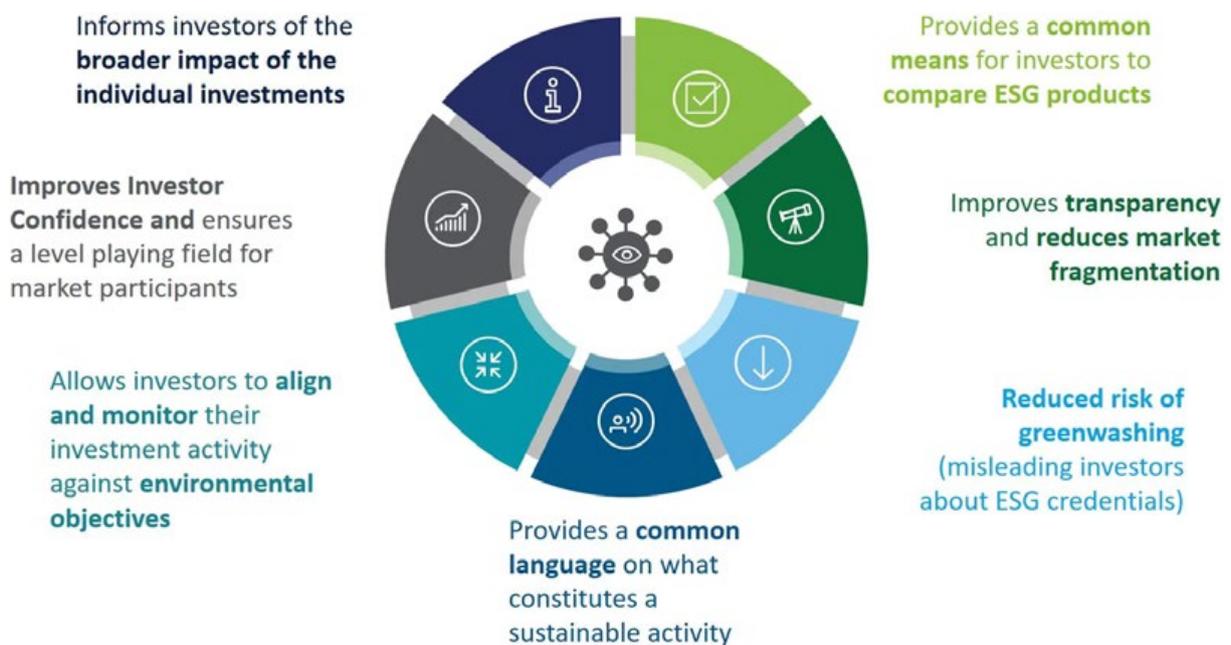
Limitations of innovation finance when considering circularity: The circular economy involves not only technological developments for solving specific problems, but also requires an integrated view across the value chain. Investments must consider a multi-stakeholder approach, radical changes to business models and large and small organizations working together using a market pull strategy.

13 [The Innovation Policy Platform..](#)

Green finance

Green finance regards financial mechanisms that allow organizations to pursue environmental goals, particularly related to energy transition and climate change, while maintaining a return on investment (ROI). It represents an understanding of how the financial system can positively impact sustainability. This concept was discussed during the COP21, and it is part of the Paris Agreement, where it was stated that any kind of finance should be “consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” (United Nations, Framework Convention on Climate Change 2015).

Figure 2.2. Goals for the achievement of sustainable finance in Europe



Source: Deloitte (2021)

With the increasing global effort to mitigate carbon emissions, financial organizations started to direct resources towards the climate change agenda considering technological development specifically to drive society towards a low carbon economy. Nowadays the term has developed further, creating some variations, such as sustainable finance, climate finance and ESG finance, which are used to strengthen the goal of driving industrial and commercial activities towards lower emissions and more socially responsible businesses. In green finance, the strategy for projects selection usually considers ESG frameworks in line with national and international goals.

Limitations of green finance when considering circularity: Investments that meet low carbon criteria are not necessarily based on circular business models. Extended boundaries of analysis must be considered to ensure supply chain integration, product and industrial plant design, modularity, recycling, repair and after-use solutions. Green finance must go beyond plain resource efficiency and waste management projects, endogenizing closed loops of resources with the aim of retaining material value as much as possible. The aim should be to guarantee that materials will be always valued at their highest level, with the goal of designing out waste (FinanCE Working Group 2016; ABN AMRO, ING and Rabobank 2018).

Circular finance

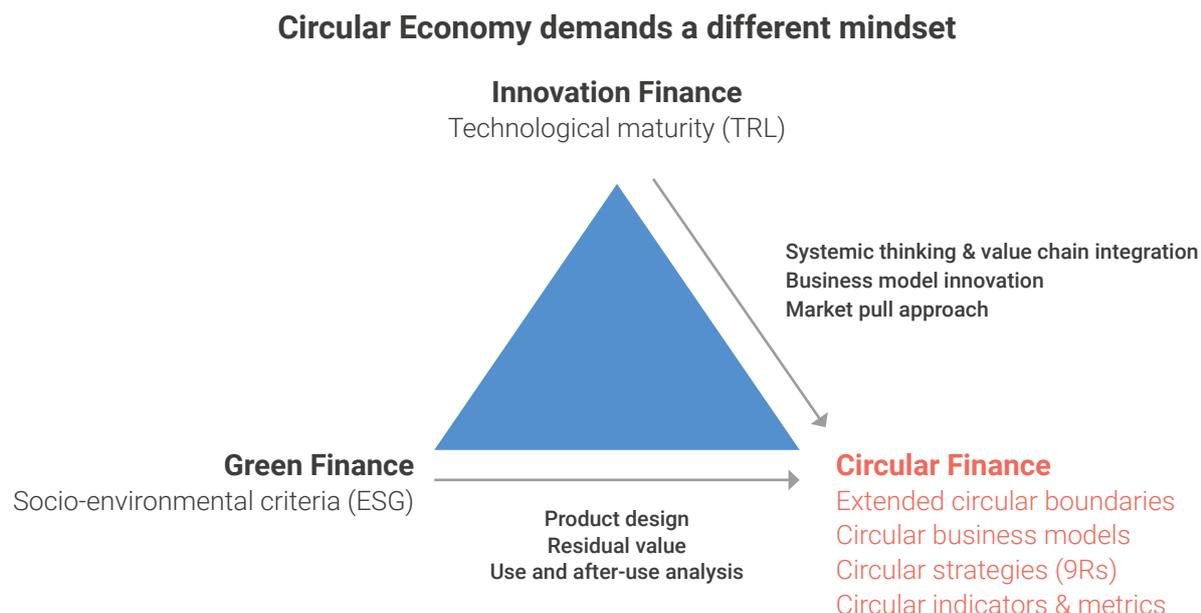
Circular finance must consider the integration of innovation aspects into product design and technology, business models, multistakeholder processes and partnership models, as well as material supply based on reverse supply chains, waste residual value and after-use opportunities. It also represents an understanding of how the financial system can positively impact a low-carbon economy in the same way as green finance does, but from a much **more systemic perspective**. Therefore, circular finance must necessarily incorporate the characteristics of product design on the use and **after-use phases** of the financial assessment model, as well as the value of waste when entering the **secondary markets**. Circular projects usually consider more than one player in the value chain—since circular solutions cannot be designed in isolation. Circular business models must involve several agents and closed-loop value chains, and the 9 R's behaviours, previously explained, and extended project boundaries may be used as an important element to guide investors. A new set of financial regulations, standards and norms applied to finance or re-finance can contribute to keeping control over resources along the entire supply chain while preserving and adding value (FinanCE Working Group 2016; ABN, AMRO ING and Rabobank 2018) to products and materials.

Studies from the Ellen MacArthur Foundation and the European Environmental Agency have shown that the circular economy is crucial for humanity to have a chance at tackling climate change (European Environmental Agency 2020; Ellen MacArthur Foundation 2021a). At the same time, the circular transition can boost innovative technologies by (1) developing products that last longer and/or are easier to maintain, repair, upgrade, refurbish, remanufacture or recycle; and/or (2) creating new materials and solutions from biobased/residual sources, that are fully recyclable and/or use less resource intensive processes (FinanCE Working Group 2016).

In that sense, **green finance and innovation finance are both part of the circular finance framework as the circular economy goes beyond materials flow and recycling** and it requires a broader view of value generation, new formats of risk assessment, long-term thinking and collaborative efforts, and must incorporate multi-stakeholder approaches (within or across supply chains) and business model innovation.

This perspective implies a **positive shift in the financial system** through the development of financial products and mechanisms focused on promoting new circular business models by introducing the understanding and analysis of circularity, the 9R framework, expanded circular boundaries, as well as new indicators and metrics that allow a systemic analysis to be carried out. This is what we are calling the Circular Finance Shift (Figure 2.3).

Figure 2.3: The Circular Finance Shift



Source: Developed by the authors

Circularity indicators and metrics, together with a unique assessment of value chain integration and sociocultural changes, are crucial in developing both business policies and strategies, and project and portfolio assessment frameworks to accelerate the circular transition.

It is important to highlight that similar to innovation finance and green finance, most funding available for circular business models is focused on projects already in the growth phase, while businesses in the startup phase have more limited offerings. This highlights the need to investigate ways of funding the starting and disruptive phases of circularity.

Mitigating the risks of the linear economy

In 2018, a joint study carried out by Circle Economy, PGGM, KPMG, EBRD and WBCSD (2018) demonstrated that the current linear model of production and consumption was incurring several risks for businesses. According to this study, the linear risks were divided into 5 groups:

- **Market risks:** raw material price volatility, criticality and scarcity;
- **Operational risks:** employee health, stranded assets, sustainable sourcing;
- **Business risks:** changes in consumer behavior, disruptive technologies, commoditization;
- **Legal risks:** changing legislative priorities, consumer lawsuits, product bans;
- **Reputational risks:** brand image, license to operate.

Risk management is an extremely important part of the investment process, a key factor for business stability and long-term growth. Circular economy comes as an opportunity to mitigate these risks while securing competitive advantage and business survival. This is the reason why we see a growing development of public policies and financial instruments to encourage the transition in Europe establishing circular economy as a top priority and an essential production model to guarantee the region's competitiveness.

However, risk analysis for financing the circular transition must also respond to the challenges of building new business models, such as the development and maintenance of long-term partnerships within and across value chains, building consumer awareness and valuation of assets to enable market uptake of their residual waste (i.e., the development of secondary, tertiary, or, ideally, perennial markets) (FinanCE Working Group 2016; Circle Economy, PGGM, KPMG EBRD, and WBCSD 2018). Moreover, the perceived risk can also be due to the lack of information and the traditional ways in which financial institutions assess risk.

To overcome such barriers, the European Commission launched the 2014–2020 **Cohesion Policy Support for the Circular Economy**, providing EUR 150 billion to support circular economy materialization in Europe, leveraging additional private funding, complemented by other European Union funding sources, such as Horizon 2020, LIFE and COSME (European Commission 2014). Subsequently, in 2017, the Circular Economy Finance Support Platform was established to bring together innovators and investors. Subsequently, in 2017, the **Circular Economy Finance Support Platform** was established to bring together innovators and investors¹⁴ to find financing solutions for circular economy projects (European Commission 2017).

A Circular Finance Ecosystem is needed for the LAC region

The efforts of the European Commission towards creating the Circular Economy Finance Support Platform¹⁵ led to the creation of the **European Circular Economy Stakeholder Platform**, a joint initiative with the European Economic and Social Committee. The Platform is a space for the exchange of ideas and supports a growing body of information, designed to accelerate the transition to a circular economy.¹⁶ This induced the delineation of a **Circular Finance Ecosystem** in the region, where public and private financial institutions cooperate on the provision of financial instruments and mechanisms to support circular businesses and projects at distinct levels of maturity, often supported by expert assistance from transition brokers or facilitators. This initiative demonstrates the diversity and interactions of financial institutions and the value creation potential of the circular economy for the financial sector, as well as helping to understand and assess the European experience and evaluate what can be adapted to the Latin American reality.

In LAC, the circular finance ecosystem is underdeveloped, with Chile taking the lead on the creation of transparent and CE-focused funding programs. The main components of the LAC ecosystem are the multilateral development banks, the national development banks, commercial banks and private equity companies. The region still suffers from a lack of public equity instruments dedicated to the circular economy, but there is great potential to develop a similar scheme to enable the development of local markets and

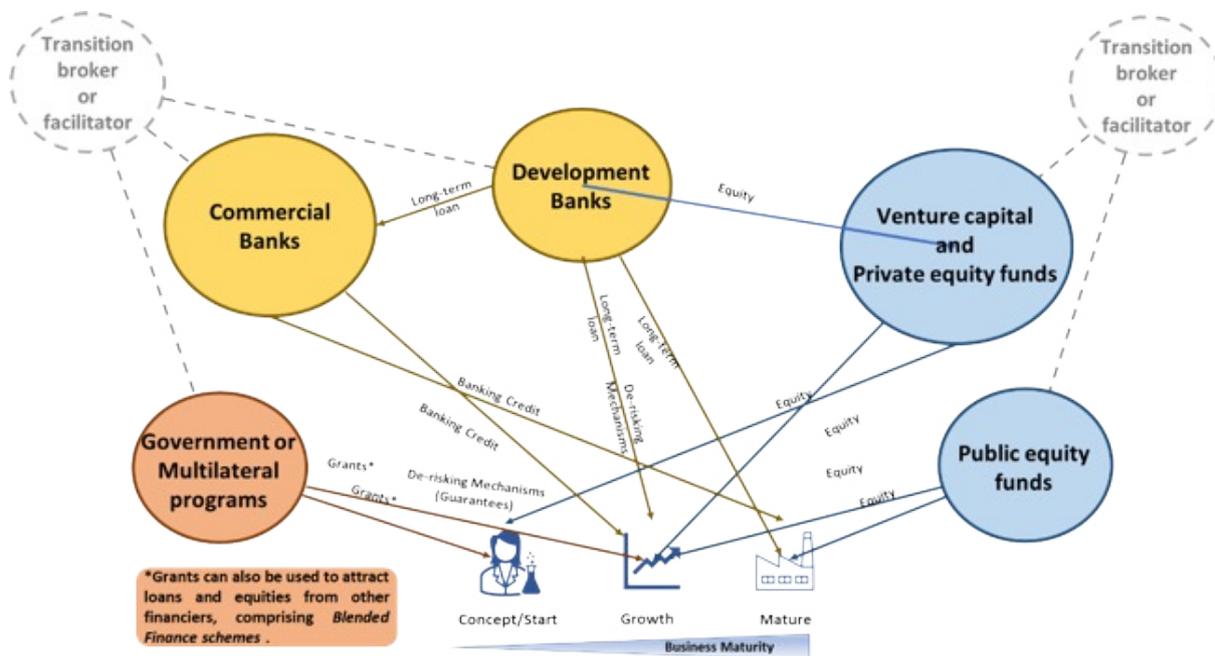
14 And, representatives of the Commission, the European Investment Bank (EIB), National Promotional Banks, Member State ministries, NGOs, and other key Circular Economy stakeholders.

15 The Circular Economy Finance Support Platform was created to enhance the link between existing instruments and potentially develop new financial instruments for circular economy projects. To facilitate and support circular economy financing needs, it has been structured into 3 pillars: (i) Circular Economy coordination and awareness raising; (ii) Circular Economy Advisory; and (iii) Circular economy financing.

16 [Learn more About the European Circular Economy Stakeholder Platform](#)

resources allocation. Figure 2.4 presents a proposition for the circular finance ecosystem in LAC, considering the main agents and financial instruments used, based on business maturity and the different types of instruments.

Figure 2.4: Proposition for Circular Finance Ecosystem in LAC



Source: Developed by the authors

It is also worth highlighting that development banks and LAC / governmental programs play an important role in co-financing circular business through grants (from LAC / governmental programs), guarantees and other de-risking mechanisms. These can lead to the attraction and mobilization of private resources, reducing investment risks for all. Development banks do not only directly invest or finance but can also provide technical assistance and direct long-term loans to commercial banks which then on-lend to businesses.

A good example that can be replicated in the region is the **European Circular Bioeconomy Fund**, the first co-finance model and equity fund exclusively dedicated to the bioeconomy and the circular bioeconomy in the EU and the Horizon 2020 Associated Countries (European Investment Bank 2020b). This fund is a joint action for biobased industries led by the EIB, in collaboration with the European Commission and ECBF Management GmbH. The ECBF reached €82 million in its first round with investors and has a target size of €250 million, aiming to provide financing to innovative growth-stage companies and projects. An additional €100 million is already committed to the fund and backed by InnovFin—EU finance for Innovators, an initiative from the EIB Group and the European Commission for facilitating access to finance for innovation and research through financing tools and advisory services.

Private institutions can also take the lead and be key for the circular transition

In the European experience, both public and private sectors lead cutting-edge circular financing endeavors and, following the European Commission's Circular Economy Package in 2014, a group consisting of different types of financial organizations and knowledge experts was founded with the aim of developing a common understanding of how financial investment and returns could change in the circular economy: the FinanCE Working Group.

The group was launched by the **Dutch pension service** provider PPMG and later joined by the **commercial banks** ABN AMRO, ING, Intesa San Paolo, BNP Paribas and Rabobank, the **consultancy firm** KPMG, the **private equity firm** Circularity Capital, **development banks** EBRD¹⁷ and EIB, the **knowledge institutions** Rotterdam School of Management and Sustainable Finance Lab, and **circular economy facilitators**, the Ellen MacArthur Foundation and the Circle Economy.

The primary focus was to evaluate the impact of the circular economy business models on corporate finance and the macroeconomic implications. The learnings resulted in the release of three reports: "Money makes the world go round" (FinanCE Working Group 2016), "Circular Economy Finance Guidelines" (ABN AMRO, ING and Rabobank 2018) and "Linear Risks" (Circle Economy, PGGM, KPMG, EBRD, and WBCSD 2018).

A similar group could be fostered in LAC.

New financing models in line with the three key motivators for the circular economy

By assessing what has led top managers and entrepreneurs to adopt a circular business model, three key drivers (Braam *et al.* 2018) have motivated organizations to start working with a circular revenue model, leading to three types of finance models:

- **Risk-based finance model—driven by risk or necessity:** this driver comes from fluctuations in the price of raw materials and an organization's negative ecological impacts. External factors are also viewed as necessities, including the role of government, new laws and regulations, and social, societal and cultural influences, i.e., expectations of the surroundings.

17 EBRD stands for the European Bank for Reconstruction and Development.

Box 2: Preventing Marine Litter

Catalyzing investment solutions to stop ocean plastic—this is the aim of Circulate Capital, an emerging market investment management firm that finances innovations, companies and infrastructure that scale solutions to the plastic waste and climate change crises. Research has found that most of the plastic that enters the ocean could be reduced by as much as 50 percent by investing in waste and recycling management, and even more by investing in innovative materials and technologies.

To unlock the capital needed to build circular supply chains and sustainable waste and recycling systems in South and Southeast Asia, Circulate Capital has been established with the aim of proving that investing in this sector is scalable and can generate competitive returns. In a particular fund, USAID provides 50% loan-portfolio guarantee to incentivize private capital investment and new business development in the recycling value-chain in South and Southeast Asia. P&G and PepsiCo are examples of companies that are already involved and provide private capital.

In LAC, Coca-Cola Latinoamerica and Arcor SAIC, major players from the food and beverage sector, joined efforts to create Kamay Ventures. Kamay is a corporate venture capital fund for promoting innovation in solutions that contribute to the digitization of the different production process stages, including sustainable packaging and containers, as per the paradigm of the circular economy (e.g., new materials, biobased and/or biodegradable products).

Sources:

circulatecapital.com

kamayventures.com/about.

- **Mission-based finance model—driven by mission or value proposition:** applying technological and other forms of product, process or business model innovation requires a bold strategy. These adjustments do not only require investments, but also entail a degree of risk. However, there is growing confidence that pioneering sustainable innovation companies will lead to higher returns.

Box 3: The central role of National Development Banks in accelerating the transition

Under their mandate of innovation and as risk-taking actors, National Development Banks must support projects that are in alignment with national development strategies, leading the financial system to meet the nationally established goals. The development of the circular economy needs long-term financing in line with a country vision so that innovative projects can develop further and gain scale. National Development Banks also work directly with other financial institutions, providing loans or investing in equity, which increases the liquidity of the financial system and allows greater capillarity of investments. The European Investment Bank (EIB) case in Europe is an example of how a development bank acts on different fronts: it finances and technically supports commercial banks; it is one of the investors of the European Circular Bioeconomy Fund, the developer of a venture capital fund dedicated to the circular economy; and it also invests directly in companies with circular projects.

In LAC, the Chilean national development agency CORFO has gained prominence in the regional arena through its CE-focused innovation programs. In 2018, CORFO launched “Prototipos de Innovación en Economía Circular” to co-finance companies aiming to develop circular product prototypes.

In 2020, CORFO launched “Súmate a Innovar foco Economía Circular” aimed at developing innovative solutions for increasing the productivity and competitiveness of national companies using CE principles and criteria, including preservation of the value of inputs, materials and products; optimized use of resources; and systemic efficacy. With the technical assistance of the Ellen MacArthur Foundation, and making use of the 9R framework as selection criteria, CORFO can be considered a regional benchmark for supporting businesses that are being born with a circular mission.

Sources:

ecbf.vc/

pucv.cl/uuaa/site/docs/20180907/20180907152201/_resumen_corfo.pdf

corfo.cl/sites/cpp/convocatorias/sumate_a_innovar_foco_economia_circular

- **Opportunity-based finance model—driven by opportunity for competitive advantage:** this driver comes from the organization choosing to use circularity as a distinctive market proposition. In practice, gaining a market strategy advantage means keeping a critical eye on market demand, clearly defining the target group, and then coordinating the market proposition in line with both. This driver usually happens when the company is looking at what its competitors are doing and is keen on taking the lead and becoming more competitive.

Box 4: Commercial banks and private equity funds are seeking training to seize circular economy opportunities

With the potential to achieve financial returns associated with lower resource dependency, less exposure to risks related to the linear economy, and the ability to meet stakeholder expectations, private financial institutions are seeking greater interaction with circular experts to be able to understand the particularities of circular business models and offer financial instruments dedicated to fostering circular projects.

Intesa SanPaolo has been receiving technical assistance from the Ellen MacArthur Foundation and has launched a €6 billion credit facility dedicated to circular economy projects. Their pioneering attitude has also led to the development of a Circular Economy Lab, where technical support is provided to clients.

Circularity Capital is another example of a private equity fund that was created to accelerate truly circular business models. Its founder has long-term experience in the circular economy, and has therefore developed a unique governance and assessment model, which selects projects solely based on the five OECD-approved circular business models. Selected projects are focused on addressing the risks of the linear economy, obtaining reputational gains, based on their pioneering business models. Circularity Capital expects a high-return perspective.

In LAC, Bancolombia also adheres to Ellen MacArthur Foundation's approach to developing strategies on its direct operation and client support pertaining to financing and other solutions in circular finance. The bank has a strong, long-term commitment and stewardship on sustainable finance and has recently made public its intention to launch a CE-focused credit facility.

Sources:

group.intesasanpaolo.com/en/sustainability/environment/green-products/support-to-circular-economy
circularitycapital.com/
bancolombia.com/wps/portal/acerca-de/informacion-corporativa/sostenibilidad/reporte-de-sostenibilidad/modelo-de-sostenibilidad
larepublica.co/finanzas/bancolombia-ampliara-linea-crediticia-sostenible-para-proyectos-de-economia-circular-3276094

As previously mentioned, cooperation all along the value chain with suppliers and customers is very important, but system cooperation with shareholders, financiers, government and NGOs is also crucial. Therefore, **working together on sustainable solutions in which all stakeholders in the value chain are involved can not only reduce environmental impact, but also spread costs and risks.** In addition, cooperation between different parties contributes to data collection, transparency, legitimacy and reputation improvement.

Financial instruments already being employed to accelerate the circular economy transition in LAC

The financial services sector in LAC is undergoing rapid and structural changes that are very likely to influence the region's circular transition. The scaling up of digital financial services and the rise of climate-related risk management by financial regulators and supervisors are changing LAC financial landscape, providing diversification and redirection of resources towards climate mitigation and adaptation endeavors (Frisari *et al.* 2019; Barabash 2021; Strange and Hafemeister 2021)..

In the meantime, pre-existing commitments on environmental and social risks have led some public and private financial institutions in LAC to include the circular economy among the thematic areas supported by some of their products and programs. The financial instruments composing these products are the focus of the present section, which presents research results on how financial instruments have been used to accelerate the circular economy transition in LAC.

Financial instruments that explicitly mention the Circular Economy

The research has been carried out through a literature review (on research papers, public reports, institutional media and specialized websites), semi-structured interviews with seven practitioners from the LAC financial sector, and four validation meetings with UNEP FI's Interest Group—a group of relevant stakeholders from the LAC financial sector organized by UNEP FI and dedicated to this project.

Differently from previous studies (ComunicarSe and Asociación de Empresas y Profesionales para el Medio Ambiente [AEPA] 2020; Schröder *et al.* 2020), the present research focuses on financial instruments that explicitly mention “circular economy” or “circularity” as a thematic area or selection criteria. Financial instruments dedicated to waste management, treatment or recycling that do not mention “circular economy” have not been covered. This report has focused exclusively on instruments offered by financial agents operating in Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Mexico and Peru.

Financial instruments: main characteristics, challenges and opportunities

The research has identified six different types of financial instruments grouped into four categories (Figure 2.5),¹⁸ which have been used to accelerate the circular transition in LAC: debt-based instruments [banking credit (short-term loans), long-term loans and bonds]; equity-based instruments [private equity and venture capital]; hybrid instruments [mezzanine and convertible structures]; and non-reimbursable funds¹⁹ [grants and blended finance schemes²⁰].

Operated in 25 financial products (Annex 2), each instrument presents unique characteristics, opportunities for the region, and challenges to be overcome.

18 The definition of each instrument is detailed at Annex 1.

19 Non-reimbursable funds are not a classic type of financial instrument since they do not comprise contracts that generate a financial asset for one party and liability for a second party. However, given their quantity, popularity and financial relevance, they have been included in the assessment.

20 Blended-finance schemes comprise a de-risking funding mechanism where non-reimbursable funds, such as grants, are used to attract loans and equities from other financiers. For the sake of simplicity, blended finance schemes have been grouped with non-reimbursable funds.

Figure 2.5: Examples of financial instruments operating in LAC

Debt-based instruments			Equity-based instruments	Hybrid instruments	Non-reimbursable instruments
Banking credit	Long-term loans	Green bonds	Private equity & venture capital	Convertible debt & equity, Structured, Mezzanine	Grants
Bancolombia Banco Estado de Chile	Bancoldex BNDES CORFO COFIDE Sistema Banca para el Desarrollo IDB/IDB Invest	FEMSA-Coca cola Bancolombia Green bonds wwith CE KPIs and related categories	FINEP BNDES Kapin Capital Rise Ventures Global Ventures Inversor FONADE Fondo de Capital para emprendimientos inovadores (FOF)	Pomona Impact/IDB	CORFO Innovate Peru/Ministry of Finance PROPME Fund, Costa Rica's Ministry of Science ERA-MIN Program (FNEP/BNDES)
					Blended finance
					Latitud R

Most common clients in our sample:

Large and medium corporations	Corporations and SMEs	Large corporations and startups	SMEs and startups (growth)	Corporations and SMEs (incl. co-finance)
				Risk appetite

Source: Developed by the authors

The financial instruments were assessed based on the “centrality” of the circular economy indicating how focused each financial instrument is on the Circular Economy principles.

Four different “levels of centrality” have been considered:

Low—when the term “circular economy” is mentioned as an area of interest, but a clear definition is not provided and a dedicated financing line for circular businesses and projects does not exist;

Partial—when a clear Circular Economy definition is provided but no dedicated financing line for circular businesses and projects is supplied;

High—when both a clear definition for Circular Economy and a financing line dedicated to circular businesses and projects are supplied; and

Advanced—besides providing a clear definition for circular economy and a financing line dedicated to the circular economy, a transparent and circularity criteria-based selection process is also supplied.

A brief explanation of the financial instruments within each of the four categories are shown below highlighting their main characteristics, challenges for expansion and opportunities for further development. All 25 identified financial products have been analyzed following this approach and the results are detailed in Annex 2, “Financial instruments for the circular economy in LAC”.

Table 2.1: Debt-based instruments²¹

	Main characteristics	Challenges	Opportunities	Example
<p>Banking Credit: shorter-term loans backed by government programs partnered with advocacy institutions (Chile and Colombia)</p>	<p>Lower interest rates and longer terms than traditional products. Both SMEs and large businesses are eligible, provided they comply with decoupling economic activity from consuming finite resources and waste generation</p>	<ol style="list-style-type: none"> 1. The lack of a common circular finance taxonomy. 2. Circular businesses can be easily marked as high risk by the development banks since they often comprise startups and relatively young SMEs 3. Circular Economy projects must also be assessed in terms of impact on social objectives. 4. There is little knowledge about circularity principles, and there is still no strong market demand on circularity issues. 	<ol style="list-style-type: none"> 1. Circular economy-centered second-floor banking resources can be accessed if commercial banks develop the capacity to finance circular projects. 2. Multilateral development banks align with international discussions on the circular economy and are an essential source of resources and knowledge for commercial banks. 3. Circular economy parameters can be included in social and environmental risk assessments for more critical sectors (energy, mining, infrastructure, etc.). 	<p>Bancolombia and BancoEstado offer credit lines on circular economy. Both offerings stem from governmental programs (development banks or funding agencies)</p>
<p>Green bonds: a promise for the circular economy take-off in LAC (Chile and Brazil)</p>	<p>Green bonds in LAC explicitly mentioning the circular economy are predominantly only partially focused on the subject.</p>	<ol style="list-style-type: none"> 1. The further dissemination of green bonds in the region still depends on macroeconomic stabilization and the development of regulations, so as to maximize growth opportunities in the region. 2. CE criteria for the use of proceeds. 3. Lack of CE-focused KPIs 	<p>Green bonds in LAC can be significant sources of long-term funding for companies and financial institutions, such as commercial banks, which in turn can provide credit for financing companies and projects that incorporate circular economy principles.</p>	<p>Green bonds issued in Brazil and Chile were connected with large companies in the pulp and paper industry, Commercial banks consider the circular economy in its green bond management framework. Green bonds issuances in LAC are mainly concentrated in Brazil, Chile, Mexico and Colombia.</p>

²¹ Debt-based instruments are the most common in financing the circular economy in LAC. Mostly holding a partial Circular Economy centrality.

	Main characteristics	Challenges	Opportunities	Example
<p>Long Term Loan: the primary enablers of the Circular Finance Shift (Chile and Colombia)</p>	<p>Long-term loans implemented in the region are provided by a development bank (with a partial Circular Economy centrality) and a government agency (with advanced centrality on CE) and work as second-floor investments.</p> <p>The term can reach up to 15 years, and the instrument prioritizes support to SMEs.</p>	<ol style="list-style-type: none"> 1. The lack of a common circular finance taxonomy. 2. The lack of a national strategy and clear goals affects the operation of these entities. 	<ol style="list-style-type: none"> 1. Development banks can support industrialization processes that are circular by design, e.g., greenfield eco-industrial parks. 2. Development banks are resource mobilizers, working as business incubators and public-private stakeholder connectors. 3. Opportunity to develop innovative blended finance schemes, taking greater risks to attract private capital and unlock the circular economy 	<ol style="list-style-type: none"> 1. Bancoldex and CORFO offer credit lines on circular economy. 2. The Inter-American Development Bank (IDB) plays an important role in providing credit to smaller countries that do not have financing capacity and can act to build a common circular economy language between different LAC economies.

Source: Developed by the authors

Table 2.2: Equity-based instruments²²

	Main characteristics	Challenges	Opportunities	Example
Public equity	No LAC-focused public equity fund exists in the region yet.	<ol style="list-style-type: none"> 1. Macroeconomic and political instability in the region reduces the attractiveness of equity investments. 2. In LAC, there is a lack of knowledge about the capital market. 3. Non-listed companies may overestimate the costs and underestimate the benefits of going public 	<ol style="list-style-type: none"> 1. Circular standards are already being adopted by public equity funds internationally. 2. Several companies that manage public equity funds focusing on the circular economy already manage other funds in LAC. 	
Venture Capital and Private Equity (Chile and Brazil))	<p>Venture capital and private equity markets are incipient and are concentrated in Brazil, Mexico and Colombia. Except for one fund, all of the 6 funds identified in the region have a partial or low focus on the circular economy.</p> <p>The investment selection process can be either through open competitions, where companies register their businesses, or through closed market study of asset managers. Venture capital funds and private equity funds act similarly, buying participation in closed companies with the objective of capital gains. However, in addition to the capital contribution, they offer technical and organizational support to companies.</p>	<ol style="list-style-type: none"> 1. Small countries in LAC cannot scale the private equity market, relying on external capital. In more major countries, the advance of the private capital market requires overcoming regulatory barriers. 2. The region has high regulatory uncertainty, and private equity investments do not have investment exit flexibility. There is a lack of joint action by governments to dilute risks in the most innovative and high-impact ventures. The high risks need to be shared. Many of the circular economy projects are capital intensive. Therefore, hardly a private equity or venture capital company will be enough to finance the company's expansion process fully. It is necessary to attract other fund sources. 	<p>The venture capital is geared towards smaller but riskier projects and private equity towards more consolidated projects. The circular economy offers several opportunities in LAC that attract the interest of private investors, such as better use of biodiversity and bioenergy production.</p> <p>Venture capital and private equity firms provide technical and financial aid to companies, which can increase the success rate of circular businesses. Also, there are resources offered by multilateral development institutions that can help develop the venture capital market.</p>	<ol style="list-style-type: none"> 1. Three Venture and private equity funds were identified in LAC operating in the circular economy. Kapin Capital, Rise Ventures and AEPa. 2. LAC's venture capital and private equity markets are incipient and are concentrated in Brazil, Mexico and Colombia.

²² Equity-based instruments are less common in LAC. Identified venture capital and private equity funds have a partial or high Circular Economy centrality and no public equity funds were identified in the region

Table 2.3: Hybrid Instruments²³

	Main characteristics	Challenges	Opportunities	Example
Structured Financing	Venture debt is a type of loan in which agents charge interest rates proportional to a company's income.	<ol style="list-style-type: none"> 1. There is a significant knowledge gap regarding structured finance in LAC. Complex arrangements can be harder to explain to companies and capacity efforts must be in place to further educate agents. 2. As structured finance involves higher risks, investors tend to charge higher interest rates, driving away entrepreneurs. 3. The tremendous regulatory heterogeneity in LAC hinders the entry of international investors, who are more experienced in the use of these instruments. 	<ol style="list-style-type: none"> 1. Structured financing is still in its infancy in LAC, but it is an important instrument for investors as there is difficulty accessing banking resources in the region. Financial instruments adapted to each business can help expand projects without entrepreneurs losing participation in the companies. Bank loans can be incompatible with circular business models that present cyclical revenue-generating streams. 	<ol style="list-style-type: none"> 1. The IDB offers mezzanines with a term of up to 15 years, with grace periods if necessary, according to the cash flow of each project. 2. The EPM Group in Colombia manages funds that offer—in addition to venture capital—convertible debt and venture debt. 3. The EPM Group has a low Circular Economy centrality as it includes funding the waste management sector.

Source: Developed by the authors

²³ Hybrid instruments incorporate debt and equity elements into a single investment vehicle, providing risk management flexibility to circular economy investors. Cases found in the region have a low Circular Economy centrality. The financial instruments used for blended finance are grants, loans, and equities. There is a focus on small businesses with growth potential.

Table 2.4: Non-reimbursable funds and blended finance²⁴

	Main characteristics	Challenges	Opportunities	Example
Blended finance schemes	<p>Blended finance is a risk-sharing funding scheme where different funding sources, combining public (or philanthropic) and private capital, are used to finance higher risk projects, which bring positive impact to society (e.g., impact projects).</p> <p>Financing is limited to a percentage of the project's value that can be matched with private or other funding.</p>	<ol style="list-style-type: none"> 1. Resources for innovation are highly disputed between sectors; therefore, a national strategy that determines the key sectors that can access public resources is needed. 2. Public calls offering grants would benefit from increased frequency. 	<ol style="list-style-type: none"> 1. "Latitud R" evolved from its focus on recycling and started considering the construction of closed-loop business models. 2. According to Article 9 of the Paris Agreement, developed countries must finance development projects in underdeveloped countries, such as LAC. 3. Blended finance mechanisms used in LAC focus on sectors where the region presents infrastructure challenges, such as water treatment, waste management and energy, which dialogue with the circular economy. 4. There is a wide availability of international philanthropy resources that can be used for blended finance mechanisms in LAC. 	<ol style="list-style-type: none"> 1. "Latitud R" was the only example identified that works with a focus on the circular economy. It depends on the participation of the IDB and other development foundations that work together with large companies, such as Coca-Cola and Dow, to develop closed-loop chains. 2. IDB and other regional development banks are already structuring these mechanisms in LAC.

²⁴ Both grants and debt instruments are being considered in blended finance schemes for the circular economy in LAC. Blended finance mechanisms that already involve joint action by government entities and development funds focused on the circular economy are not common in LAC.

	Main characteristics	Challenges	Opportunities	Example
Grants	<p>Grants are the most common financial instruments used to finance circular projects of low technological maturity.</p> <p>In general, the selection process for grants involves a public tender process that defines the profile of companies and the criteria they need to meet. Financing is limited to a percentage of a project's value, which can be matched with private or other funding.</p>	<p>There is a lack of resources and technical capacity to monitor selected projects.</p>	<p>Apply grants broadly to accelerate the implementation of circular business models and develop high risk circular technologies.</p>	<ol style="list-style-type: none"> 1. Grants for the circular economy were also identified in Peru, Costa Rica and Brazil. 2. Chile stands out by virtue of its different types of grants that employ different strategies within the circular economy, as well as for its application of metrics in evaluation.

Source: Developed by the authors

Summary

- **Equity-based:** development banks (e.g. IDB) have a vital role in supplying these instruments in LAC, offering both private equity and venture capital.
- **Debt-based:** they comprise bank credit lines and long-term loans offered in Chile and Colombia, and green bonds issued in Brazil and Chile.
- Many businesses are not attractive to traditional venture capital or private equity investors.
- No LAC focused **public equity funds** exist in the region yet.
- Risk assessment methodologies should integrate parameters related to the risks of the linear economy, which can lead to additional financial costs in terms of stranded assets (FinanCE Working Group 2018).
- Bancolombia and BancoEstado offer credit lines for the circular economy^{25,26} and both banks receive technical assistance from the Ellen MacArthur Foundation.
- LAC represents a very small portion of the blended finance mechanisms used globally, so there is a pervading lack of knowledge about how these mechanisms work, and a lack of transparency in how private capital can participate.

The challenge of the financial system for selecting circular businesses and projects

A successful transition to the circular economy requires the capacity to measure and evaluate progress on circularity performance in different contexts and scopes (Kirchherr, Reike and Hekkert 2017; Potting *et al.* 2017). Metrics for circularity and dedicated assessment methodologies have been the number one focus in the debate on how to channel efforts towards developing circular business models capable of materializing and consolidating circular finance. Being able to effectively assess the circularity of organizations, projects, or their contribution to Circular Economy can also help to develop business strategies.

Academia, industry and public officials all concur that appropriate approaches to monitor and evaluate the implementation of circular economy strategies are needed in business contexts that are appropriate to their value propositions and strategic choices (Franco, Almeida and Calili 2021). For this, researchers and practitioners have been considering three levels of indicators and metrics in terms of assessment scope (Moraga *et al.* 2019; WBCSD, 2021):

- **Macro-level** refers to circular economy development in global, national, regional or local contexts.
- **Meso-level** refers to developing business ecosystems and eco-industrial networks, which benefit regional production systems and the environment.
- **Micro-level** comprises products and their parts, companies and consumers.

25 [Modelo de sostenibilidad Bancolombia](#)

26 [BancoEstado.Financiamiento economia circular](#)

In this vein, many tools, indexes, indicators and metrics already exist (Saidani 2019; Parchomenko 2019; Franco, Almeida and Calili 2021) which have adopted different concepts and methods to quantify circularity. Nevertheless, it is crucial to grasp what these indicators measure in order to apply the correct scope of assessment, and to fully understand their limitations and boundaries (Potting *et al.* 2018).

Some of the main available online measurement tools for assessing circularity, and their embedded indicators and metrics, are shown as examples in the following table:

Table 2.5: Examples of online measurement tools for assessing circularity

Measurement tool	Institution	Scope of assessment
Circularity Gap	Circle Economy	Global, countries and regions
Circulytics	EMF	Company circularity
Circularity Transition Indicators	WBCSD	Resource flow along the value chain
Cradle to Cradle	C2C	Product life cycle
CIRCelligence	BCG / Circle Economy	Planning circularity
Circle Assessment	Circle Economy	Circular thinking

Source: Developed by the authors

Using different circular economy measurement tools can create awareness and set a baseline for identifying and tracking opportunities, for building, assessing and comparing business cases, as well as validating and sharing results. Such tools and frameworks may also be useful for financial institutions seeking circular opportunities.

However, despite the multiplicity of indicators and metrics proposed, the existing measurement systems are not always appropriate to measure circular strategy performance on a systemic level (Moraga *et al.* 2019) and must be combined in order to fully capture the interaction between the different businesses on the value chain, and to engender the sociocultural change needed for the circular economy transition.

Moreover, there is a need to connect circular economy indicators, ESG frameworks and decarbonization agendas, in compliance with the Paris Agreement, to ensure that the circular economy is considered part of the agenda required to achieve the UN Sustainable Development Goals.

Standardization in the field of circular economy

Efforts have been made to develop standards to **communicate and report** the adoption of circular economy practices by several recognized institutions, such as: the

Carbon Disclosure Project (CDP),²⁷ the Global Reporting Initiative (GRI)²⁸ the Sustainability Accounting Standards Board (SASB),²⁹ and the International Standards Organization (ISO).³⁰ At regional level, the Pan American Standards Commission (COPANT),³¹ is promoting discussions on the progress of circular economy standardization in LAC.

A transparent circularity report can also increase the **inclusion of circularity in decision-making processes**. In this way, a comparable and standardized set of circularity indicators and metrics will be useful to align policies, ESG criteria and companies' non-financial reports.

Technical standards and specifications can also play a fundamental role in the circular transition (National Metrology Institute of Germany [PTB] 2020); as they **ensure reliability and foster trust** while helping unify terminology and interfaces, which results in **better communication and effective exchange of information among market actors** (e.g., by gathering data or establishing requirements for recyclable products and for an unambiguous classification of materials for manufacturers and recyclers) (International Organization for Standardization [ISO] and International Electrotechnical Commission [IEC] 2015).

Finally, the development of indicators for assessing business circularity must also be **accepted among players in the financial sector**. Relevant initiatives towards circular finance include the development of the "Principles for Responsible Banking Guidance on Resource Efficiency and Circular Economy Target Setting" (UNEP FI 2021), a guide developed jointly by UNEP-FI and a working group of banks that are signatories to the Principles for Responsible Banking (PRB), designed to aid in efforts to set targets for resource efficiency and circular economy financing. This guide is also aimed at helping them to understand how to get started, how to accelerate and scale up circular economy approaches by setting appropriate targets.

27 CDP is an international non-profit that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts, reduce their greenhouse gas emissions, safeguard water resources and protect forests. In 2021, circularity concepts are included in its water indicators.

28 Is the independent, international organization that helps businesses and other organizations to take responsibility for their impacts by providing them with the global common language to communicate those impacts. GRI has included circularity and waste prevention concepts in its 2020 standard on waste reporting (GRI 306: WASTE).

29 Sustainability Accounting Standards Board (SASB) Standards guide the disclosure of financially material sustainability information by companies to their investors. Available for 77 industries, the Standards identify the subset of environmental, social and governance (ESG) issues most relevant to financial performance in each industry, and has included circular economy in its related framework performance indicators related.

30 An International Standards Organization (ISO) committee is working on defining internationally standardized and agreed principles for the terminology and definitions related to the circular economy. The goal is to develop an ISO management system standard, which is key for this transition, and which will ensure worldwide alignment with business models that support the move from a linear to a circular model. An ISO standard that regulates the measurement and assessment of circularity can help financial institutions to turn financial services towards the companies and clients that adhere to it.

31 The Pan American Standards Commission, COPANT, is a civil non-profit association. COPANT is the reference for technical standardization and conformity assessment for the countries of the Americas for its members and international peers, and promotes the development of its members. It comprises the National Standards Bodies (NSB) of the Americas, which currently total 32 active members and 10 adherent members.

It proposes a practical 5-step approach for banks to set targets for financing resource efficient and circular projects, activities and clients using a 3-tier approach. Each tier represents the bank’s level of awareness, knowledge and action on resource efficiency and the circular economy, going from Tier 3 (beginner) to Tier 1 (advanced).

The 5 step-approach starts with the identification of the relevant framework with which to align (step 1), a self-assessment stage to identify the bank’s awareness level and progress until the definition of indicators (step 2), target setting (step 3), implementation (step 4), and monitoring of the key performance indicators (KPIs) (step 5).

Figure 2.6: 5-step operational process of UNEP-Fi target setting guidance



The guide explicitly proposes that banks shift from a resource efficiency approach to a circular economy approach, and encourages banks that have not yet implemented a resource efficiency approach to their portfolio to instead adopt a circular economy approach, which represents a cornerstone for the consolidation of circular finance.

Circular metrics and parameters used in LAC financial instruments

The criteria applied in the financial instruments analyzed are either related to the 9R framework strategy or specific to a target sector (e.g., forest industry). In terms of metrics, when cited, the focus is on waste reduction/recycling, water savings and mitigation of GHG emissions (see Annex 2). From the circularity measurement tools previously presented (Table 3.5), none have been taken into account. However, some quality standards such as ISO14.006 (ecodesign standard) and ISO 14.090 (adaptation to climate change) have been cited as the basis for project selection criteria for some instruments.^{32,33}

32 [Bancoldex. Línea Sostenible Adelante](#)
 33 [CORFO. Súmate a Innovar con foco en Ecodiseño](#)

Circular metrics among debt-based and hybrid instruments:

75% (six out of eight) of the mapped debt-based instruments already have some kind of circular metrics already in place. “Financiamiento Economía Circular” and “Crédito Verde”, both from Chile, do not mention specific metrics, but explicitly mention adherence to CORFO’s circular economy approach. Metrics applied in the case of loans are more general, broadly relating to the 9R framework than to specific sectorial characteristics. This is a very different pattern from the metrics used in green bonds, which are specific to the eligible projects. Green bonds already enjoy substantial market acceptance and rely very much on the definition of a common framework. The use of metrics enables investors to monitor project evolution, ensuring their funds are being properly applied.

Frameworks and institutions such as the Climate Bond Initiative (CBI), the Green Bond Principles (GBP), and the International Capital Market Association (ICMA) have an important role in shaping circular economy KPIs.

Circular metrics among Equity-based instruments:

For venture capital, private equity and hybrid instruments, the use of metrics was not identified. In general, these instruments only determine business categories of focus (e.g., “plastic chain solutions”, “businesses on the circular economy sector”) without providing further details. Then, companies selected to receive investments are chosen based on non-disclosed assessments. As private equity funds work in close partnership with the companies, the monitoring of criteria is carried out directly by the fund managers or technical advisors. Therefore, there is no need for the investee to publicly disclose information.

This is different for public equity funds that need to present adopted criteria and/or indices to the public.

In LAC, some ESG indexes and ratings exist that are still pending the incorporation of circular economy criteria to encourage CE-focused funds.

Circular metrics among grants:

In the case of grants, CORFO stands out for presenting a series of metrics specific to each public tender process. The metrics used are related to different R-behaviors. In the case of Ecodesign grants, which are related to “rethink” and “reduce”, metrics used are in line with ISO14.006.

Examples:

CBI considers the waste management sector as eligible for green bonds subject to certain conditions. However, the circular economy is not explicitly mentioned either in CBI’s taxonomy or standard practices.

GBP offers a certain standardization and a category related to the circular economy, the “Circular Economy Adapted Products, Production Technologies and Processes and/or certified eco-efficient products”, proposing a set of reporting metrics for circular and eco-efficient projects.

Examples:

BlackRock’s “Circular Economy Fund” considers four categories related to the circular economy (Adopters, Enablers, Beneficiaries and Business model winners) assigned by investment advisors and specialized third-party support. For each of the categories, the Fund selects the best issuers (from an ESG perspective). The fund is rated by MSCI ESG Fund Ratings, an index of MSCI, which has introduced a circular economy and renewable energy listed equity index.

Learning highlights

- **Despite the existence of financial instruments designed to advance the circular economy transition in LAC, the full conceptual spectra are still overlooked.** Financiers frequently narrow Circular Economy endeavors to waste management practices (recycling, reverse logistics, etc.).
- **Circular finance goes beyond Green finance, Climate finance, or Sustainable finance.** Circular finance endogenizes closed loops of resources retaining material value as much as possible, following the premise that materials should always be valued at their highest level, designing out waste.
- **Circular finance goes beyond Innovation finance.** Circular finance requires a broader view of value generation, with new formats of risk assessment, long-term thinking and collaborative efforts, requiring innovation finance to incorporate business model innovation and multi-stakeholder approaches whereby large and small organizations work together to devise new opportunities and solutions.
- **Green finance and Innovation finance can be converted into Circular finance,** since a circular transition can boost innovative technologies with the development of more durable and/or easier-to-maintain products; and/or the creation of biobased materials and solutions that are fully recyclable and/or less resource intensive.
- **The deployment of a Circular Finance Ecosystem in LAC is key.** In a circular finance ecosystem, public and private financial institutions cooperate on the provision of financial instruments and mechanisms to support circular businesses and projects at distinct levels of maturity. Such interconnection can boost the development of local circular markets and optimize resource allocation.
- **Private institutions are key for the circular transition.** With greater autonomy for taking action, private financial institutions can take the lead on building capacity and devising CE-focused financial products and services.
- **Eminent risks, new business opportunities and the call for purpose are the main levers of circular businesses.** Top managers and entrepreneurs adopt circular business models driven either by necessity, purpose or competitive advantage. Understanding these drivers can help financial institutions better design CE-focused products and services.
- **LAC does not yet have CE-focused public equity funds.** Despite a relatively mature stock market in at least four of the seven countries studied, a public equity fund dedicated to the circular economy has not been identified.
- **68% of financial instruments mapped have a Partial or High Circular Economy centrality.** From 25 instruments, eight (8) have a Partial and nine (9) have a High focus on CE. Three (3) presented an Advanced and five (5) a Low focus on CE.

- **Chile has the most advanced circular finance practices in LAC.** CORFO leads the transition process by offering credit and support to commercial banks. It also systematically offers grants aimed at fostering innovation in circular business models and attracting private capital.
- **Many indicators, metrics and tools have already been designed to measure and evaluate progress on circularity performance in different contexts and scopes.** Nevertheless, it is crucial to grasp what these indicators measure in order to use them properly, and to understand their limitations, boundaries and application context. Moreover, their use should be combined in an approach that captures the interaction between business and the sociocultural change needed for a circular economy transition.
- **Circular economy indicators, ESG frameworks and decarbonization agendas are intrinsically connected.** Circular economy concepts and principles comply with the Paris Agreement and can accelerate the achievement of the UN Sustainable Development Goals.
- **A circular economy checklist can be devised from the complementary aspects** that need to be considered in portfolio and project assessment frameworks, such as business interactions and the sociocultural change needed for a circular economy transition.
- **UNEP-FI and a working group of banks have developed a guide to aid financial institutions.** The guide proposes a practical 5-step approach for banks to set targets for financing resource-efficient and circular projects, activities and clients, based on the bank's level of awareness, knowledge and action on resource efficiency and the circular economy.

Which are the current options for financing circular business models in LAC?

At least 25 different CE-related financial options are operational in LAC. They comprise blended-finance schemes, grants, mezzanine, venture debts, venture capitals and private equities, green bonds, and long- and short-term loans. Despite the fact that 68% have a Partial or High level of CE centrality, much effort is still required to expand and incorporate the full conceptual foundations of the circular economy.

Case studies



Inclusive solution for optimal use of packaging— Venture capital with expert support to expand successful circular business models

Business information

Chilean startup established in 2013 and achieved B corporation status in 2014, designed to distribute life's essentials through IoT-connected vending machines and smart reusable packaging. This system enables game-changing product traceability and proposes consumers buy life's essentials *by the gram*: the literal translation of Algramo. Their objective was to reduce packaging waste and solve the "poverty tax" that people pay when they buy products in smaller format packaging.

Circular business model: Circular Design Model—long term value retention, product durability/refill

A bulk purchasing system that incorporates a mobile application, reusable smart packaging and IoT dispensers, empowering consumers to change their habits with simple everyday actions. The business model is economically inclusive as it was developed to reduce the cost of essential items bought in small quantities. Smart design and innovative technologies also contribute to reducing the amount of single-use plastic packaging and improve consumer experience. New commercial partnerships established with local retailers and global brands have expanded business opportunities and proved to be very successful due to supply chain integration.

Circular business impact

The system enables low resource families to buy in small quantities and pay about 40% less for life's essentials. The reuse rates for most of Algramo's reusable packaging has reached >80% due to Algramo's customers buying into Algramo's value proposition that reduces product cost, while keeping packaging in the economy and out of the environment.

Private capital for global expansion

Algramo has been recognized for being a real-world example of a successful circular business model by several awards and competitions such as the MIT Solve and National Geographic Sky Ocean Ventures Circular Economy Challenge. In Algramo's formative years, CORFO was an important player in the innovation ecosystem and fostered Algramo's development. The business model cut down the use of single-use plastics and is attracting the attention of global brands and retailers committed to reducing plastic waste. This successful journey has attracted international investors and the company will soon be raising equity investment to expand pilots in the Americas, Europe and Asia.

In April 2021, the company closed a US\$ 9 million Series A to fund its global expansion. This investment round was led by the Mexican VC Dalus Capital. The round also included Angel Ventures, FEMSA Ventures and Closed Loop Partners' Ventures Group; the latter had already invested in Algramo in 2019, where they led Algramo's seed round. The partnership with global brands like Unilever and Nestlé promoted the company's expansion plan and the integration of a RFID chip, allowing refills to be tracked and products to have radically improved traceability. By offering a turnkey solution that brings together brands and retailers and saves consumers a little cash, everyone wins.



Bioeconomy and diversification—the financial industry as a driver for change

Business information

Medium-sized company providing biobased raw materials to different industries segments, since 1968. In 2017, it became one of the first “B Corp” companies in the Brazilian Amazon Region. It went from an initial market value of US\$ 3.67 million to US\$ 5 million today, serving customers in different value chains, such as Hygiene and Cleaning, Agricultural, Biofuels, Chemicals, Cosmetics and Alcoholic Beverages segments.

Circular business model: Value Recovery Model—waste as a resource and renewable materials

Tobasa takes the most value from babassu coconut using proprietary technology while regenerating the natural ecosystem. It started with oil production from babassu nut, which only comprises 6% of the coconut. Over the years, with the implementation of innovative technology for integral use of the coconut, activated carbon has become its main product, reaching a zero-waste harvesting process while generating value-added products for several value chains. Today, Tobasa is the major producer of coconut-based activated carbon in Latin America. In 2000, the company went from “agro” to “bio” to be eligible for Terra Capital Investor (TCI) funds (blended finance provided as equity), becoming a successful case of supply integration and product design transforming their waste into high valued biobased products.

Circular business impact

Tobasa indirectly covers an area of 200,000 hectares of native forests sustainably managed by the local community, generating income for 1,500 babassu coconut extractive families and 200 factory employees.

Private capital for global expansion

The company's flexibility in reviewing its business model to meet international financial requirements has brought about positive changes in economic, social and environmental aspects. In 2000, the company had access to an international blended finance instrument from Axial Bank and IADB (BID) called Terra Capital Investor (TCI) which was successful in transforming the company from an agrobusiness to a biobased industry and establishing a landmark for the company's sustainable strategy. In 2016, the Brazilian National Development Bank, through an investment manager called Kaeté Investments, invested resources through debentures, which can be more suitable to MSMEs when compared to bonds. But it is was in 2021 that the company gained more visibility after receiving a short-term loan of BRL 1.5 million through collective loan platform Sitawi (in partnership with the Sabin Institute). The platform was created to connect investors and entrepreneurs with social and environmental impact, and is approved by the National Central Bank and recognized as a People Loan Society (SEP). Anyone can invest their own capital from R\$10 and its return is equivalent to 6.5% per year, or 191% of CDI (from June 1, 2021). In addition to below market rates for the borrower, SITAWI provide ongoing strategic advice. For the investor, this is an "easier" investment opportunity due to the risk and social impact assessments. Seeing company transformation and being willing to change business models can be a pathway for growth and maturity.



Technology and new commercial relationships strengthen the recycling value chain and circular economy adoption—private-public alliance for green tech development

Business Information

ecoincs® is a social startup from Costa Rica created in 2018. It offers points as a virtual coin that rewards commitment to recycling. It is based on a loyalty incentive system that convenes industrial recyclers, waste pickers, authorities, companies, and most importantly consumers in a single, easy-to-use, platform designed to enhance the recycling rate.

Circular business model: Circular Support Model + Value Recovery model and waste as a resource

Within the ecoins® digital platform, education and incentives are provided to encourage consumer engagement, increase recycling rates and capture consumer behavior data. The digital platform developed by ecoins is able to analyze important consumer behavior data, which is then transformed into valuable market intelligence information

in order to support public policy development. This has attracted support from both the private and public sectors: different companies are interested in using the information, and the government is interested in supporting compliance with legislation on extended producer responsibility (EPR).

Circular business impact

The startup was a finalist at the Rethink Plastics Challenge, promoted by MIT Solve and the IDB Group, and at the UN - Latin America Green Awards in the human development-equality category in 2021. ecoins® has recently achieved the maximum qualification of "A" in the Circulytics® Ellen MacArthur's evaluation index. Now present in Costa Rica, Guatemala, Nicaragua, Peru and Colombia, the regional program plans to expand to eight more countries in Latin America and the Caribbean in the next three years. More than 100.000 families have been involved and more than 6.000 tons of waste have been recycled.

Private capital for global expansion

The government of Costa Rica endorses ecoins® because of its strategic importance in maintaining Costa Rica as a world leader on issues related to natural resource protection and the fight against climate change. ecoins® is one of the startups focused on green tech that graduated from Costa Rica's Green Tech program, held in 2021. The graduates entered a 12-week program, with each participant having the possibility to win funding of around US\$ 50,000. The program is an initiative established by Procomer, the Costa Rican trade promotion agency, designed to help develop green tech in Costa Rica in collaboration with the Costa Rican United States Foundation for Cooperation (CRUSA), and supported by regionally renowned startup incubator Pomona Impact. The program includes support and advice from industry experts who specialize in acceleration, as well as the likes of technology and business methodologies. The program also helps companies make important contacts, as well as providing the opportunity to apply for risk capital. ecoins® is now ready for investment (loans, equity, etc.). The expansion of ecoins® is based on a franchising scheme already showing positive results. In 2023, they will be generating data with blockchain technology.



Make social businesses flourish—long-term loans and hands-on growth support

Business information

EatCloud considers itself a "triple impact startup" founded in 2019, and which converts the food rescue process into a SaaS (software as a service) and analytic data global

business opportunity. It connects the supply and demand of food surpluses, acting as a bridge between unsold foods and those who need them the most. By automating the food rescue process, including a subscription-based model, EatCloud automates food donation and last-minute sale, generating analytical data regarding the operation's economic, social and environmental impact, which in turn encourages responsible production and consumption behaviors.

Circular business model: Circular Design Model + Circular Support Model and long term value retention

In August 2019, Colombia adopted a law that established a policy against food loss and waste, promoting food donation as an important solution to food and nutrition security. This law was important to the development of the EatCloud business model, which helps companies in the food ecosystem to manage their food losses. The surplus food offer is uploaded onto the platform, and an AI technology matches the offer to the people most in need. The technology offers full traceability of the rescued food and generates analytical data on social and environmental aspects.

Circular business impact

Since the beginning of 2021, EatCloud has rescued 21,000 tons of food, saving the industry more than US\$ 30 million in managing food products, preventing them from being wasted, and delivering more than 50 million dishes of food to around 200 nonprofit organizations. This is equivalent to a reduction in carbon footprint by 550 tonnes of CO₂. In 2020, EatCloud won the Green Latin America Awards and in 2021, they were selected for the IDB Lab Accelerator Programme, run in partnership with Google.

Private capital for global expansion

The outbreak of COVID-19 was a reminder to serve in scale. COVID-19 accelerated EatCloud's growth from 2 to 230 cities. The exponential growth made the startup rethink its operation: 1,700 POS (point of sale), 19 food banks, and more than 1,900 organizations that serve vulnerable groups. In 2020, the Yunus Funds provided EatCloud with a long-term loan with favorable interest rates and grace periods. The Yunus loan options range from \$100,000 to \$500,000 and give hands-on growth support to make social businesses flourish. Ninety days after the outbreak, EatCloud expanded its operations in Colombia from 2 to 230 towns and cities connecting over 1,700 points of sale, 19 food banks, and more than 1,900 organizations that serve vulnerable groups. Knowledge gained through acceleration programs has supported them in designing the business for expansion, and in creating bridges with international players to gain access to international funding and to participate in international selection processes. The acceleration program has also helped them to design the business for expansion, organizing and packaging the data collected. The co-founders are now raising capital and will rely on Google's assistance to accelerate their growth. An investment round was open in 2021 for US 2 million dollars to draw the expansion process for the next 18 months. The company aims to reduce food waste and fight against hunger, generating social, economic, and environmental impact and they are already thinking about expanding to Mexico, Brazil, Argentina, Chile and Peru.



Circular products from Construction and Demolition Waste (CDW)—the investment journey

Business information

CICLO is the brand under which the company MP Recicla S.A.C operates. It collects, transports, and recycles Construction and Demolition Waste (CDW), transforming it into high quality construction material. MP Recicla has been created in 2015, and, in 2019, became an official Waste Operator Company, registered in the Ministry of Environment (MINAM).

Circular business model: optimal use model and product as a service

CICLO is focused on recovering the value of CDW removing the wood, iron, plastic, or organic materials, and producing recycled aggregate, paver blocks, bricks, gravel, and mortar. CICLO's products have the same quality as conventional ones, with perspectives for obtaining the Environmental Production Declaration (EPD) Certification. Its main clients are multinational companies that follow strict compliance and sustainability standards.

Circular business impact

CICLO has elaborated a Life Cycle Analysis (LCA) study of its eco paver block, with the technical support of the Pontificia Universidad Católica del Perú (PUCP) and in co-financing with Proinnóvate, the first LCA done in Peru for a pre-manufactured material with 100% recycled aggregates. The production of CICLO recycled aggregates generates only 10% of CO₂ than the production of natural aggregates, while the eco paver block generate 14% less CO₂ than a conventional paver. CICLO will close the year 2022 with more than 20,000 m³ of CDW recycled, making its clients avoid generating more than 1,384 of CO₂.

Private capital for global expansion

The first financial support for CICLO has been derived from the owners' relatives. In 2015, the company received grant support from CONCYTEC, the Peruvian National Council of Science, Technology and Technological Innovation totaling US\$ 50,000. This amount allowed CICLO to build a pilot plant and develop their product. In 2016, CICLO received another grant from Startup Perú (Innóvate Perú), worth US\$ 20,000. In 2017, CICLO sold 9% of its operation to a private investor – an important deal for the company to gain traction. In 2021, they were successful after a few earlier trials to access funds from traditional banks. Even though it became evident that there are still restriction on financing lines directed to small and medium-sized companies, these loans were important for the consolidation and expansion of the company. As an official Waste Operator Company, CICLO is capable of generating indicators and metrics for its clients as a tailor-made demand, not necessarily a demand from the banks. This case has been useful for financial institutions to learn from the particularities of Latin America, highlighting the unique opportunities to promote economic, social and environmental gains in the region.



Corporate investment in circular business model development—New business revenues with Product-Service System (PSS)

Business Information

Bebbia was created in 2017 through direct investment by Rotoplas, a large water-related company with products and services dedicated to this sector. Rotoplas created Bebbia to offer product-as-service solutions in its dominant market: drinking water technologies.

Circular business model: optimal use

Bebbia is a home water purification service in a Product-service system (PSS). The company offers safe, high-quality water purification through a monthly subscription that includes installation, cartridges and maintenance. Bebbia has provided Rotoplas with a new and stabler stream of income for existing products (water purification filters).

Circular business impact

Bebbia transforms a filter into a service, creating a new experience for consumers by averting the need to purchase bottled water and plastic packaging. In 2021, Bebbia reached 241,764 beneficiaries. Since its creation, 330 million liters of water have been purified, avoiding the packaging that would have been otherwise used.

Private capital for global expansion

Bebbia started as a pilot project, testing a new business model that transformed the sale of filters into a filtering service, and turning buyers into users. In the same year, Rotoplas issued a sustainable bond, the first in Latin America to finance and refinance water purification and treatment initiatives. The project evaluation and selection process is performed by the Corporate Practices & Strategy Committee, comprising three board members, with two independent members. Eligible projects must address one or more targets associated with SDG 6 (Ensure availability and sustainable management of water and sanitation for all) or 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation); or with collaborative innovation, economic and social development, or water safety. To develop Bebbia, Rotoplas carried out water quality analyses in the areas the service would be contracted, which facilitated the understanding of equipment performance, maintenance frequency, and pricing markup. Bebbia is an example of how large corporations can spin off circular business models.

3. MSMEs as a game changer

Background information

Micro, small, and medium-sized enterprises (MSMEs) comprise the most significant component of the productive apparatus in Latin America and the Caribbean (LAC)—99.5% of all businesses in the region are MSMEs—and generate 60% of formal productive employment, with an impact of 25% for regional GDP (OECD 2019a). Widely recognized as the backbone of national economies, MSMEs provide not only jobs and income but also comprise the population's main providers of goods and services.

MSMEs also play a key role in promoting gender equality. Latin America and the Caribbean lead numbers in terms of MSMEs owned by women. According to a study by IDB Invest, between 1.2 and 1.4 million micro, small and medium-sized enterprises are women-owned (Inter-American Development Bank Invest 2019). Such number represents 40% of the total MSMEs in the region. “The Win Win: Gender Equality Means Good Business” study concludes that while LAC stands out as the region with the highest percentage of firms with female participation in ownership (19.9%), there is a significant gender gap, considering that 79.1% of the companies in the region are predominantly male owned. (The Win-Win 2020). Furthermore, despite the economic and social importance of MSMEs in LAC, it is still a challenge for them to access financing (Inter-American Development Bank 2020). According to the Economic Commission for Latin America and the Caribbean (CEPAL) (2020), MSMEs in LAC represent just 6% of the region's exports, yet they constitute most formal businesses and two-thirds of all employment. Beyond the challenge of accessing credit, this partly reflects the low productivity of these companies and their difficulty in overcoming barriers to export. Although MSMEs are commonly less productive when compared to large companies, in LAC the productivity gap is more significant. MSMEs represent only a quarter of total production value in LAC (OECD 2019b), while comprising half of productive wealth in Europe.

Structural barriers, such as access to financing, digitization and innovation, and regulatory burdens, are all contributing factors (UNDP 2022). Moreover, some countries deal with high informality levels as an integral part of their economic structure, with wide-ranging repercussions for regional social and economic development.

In terms of access to financing, the main factors for the limited availability of MSME-inclusive financing lines are solvency, credit, and liquidity risks. According to 2017 data, MSME funding demand hit US\$ 2.15 trillion, while the total funding supply derived from financial institutions was limited to US\$ 347 billion, i.e., indicating a gap of US\$ 1.8 trillion (or 5.2 times the supply) (Inter-American Development Bank 2020).

MSMEs are key for the circular transition

As a critical source of employment and prosperity for a significant number of communities in the region, we must work to support MSMEs on their road to economic recovery. While targeting multinationals in top polluting sectors to ensure mass-scale transformation is valid and necessary, it covers less than half of the total picture. MSMEs have a considerable footprint contribution to value chains and are more agile in decision-making on sustainable solutions (Ecopreneur.eu 2021). Therefore, MSMEs are able to capitalize on innovative and sustainable practices faster than larger firms (Burch et al. 2016).

MSMEs could become key drivers for a sustained economic recovery in the region (United Nations Development Program 2021), but this **requires investing in both endurance and productivity**. MSMEs are lagging behind in the digital transition and are disproportionately affected by market failures, trade barriers, policy inefficiencies and the quality of institutions, while the COVID 19 pandemic has shown the fundamental importance of strengthening MSMEs' resilience and productivity potential. A cross-cutting approach to MSMEs can help enhance their innovation and productivity scale-up, as well as their contributions to inclusive growth (OECD 2022). Increasing endurance includes the creation of a business environment that is conducive to risk-taking and experimentation by entrepreneurs, as well as access to entrepreneurship competencies, management and workforce skills, technology, innovation, and networks (OECD 2019b). To help achieve these objectives, the recovery plans need to foster an increased use of intangible assets in MSMEs to drive productivity and economic growth. As such, the inclusion of intangible assets as collateral in the provision of finance is important as a complementary policy in the recovery strategy of MSMEs and start-ups (OECD 2022). Given their economic and environmental importance and their potential to bring radical, disruptive and highly necessary innovations to the market, MSMEs are vital players in the transition to a new economy that is low-carbon, circular and inclusive (Ecopreneur.eu 2021).

Lack of demand for low-carbon circular products and services, additional costs for bringing circular models into effect, lack of economic incentives to create strong market demand, the complexity of circular design, regulatory barriers, and a lack of support from the supply and demand network were some of the main barriers identified in recent studies for the promotion of circular MSMEs in Europe (Rizos et al. 2015; European Commission 2020d). The same can be expected for Latin America and the Caribbean, albeit in a specific, as yet unexplored context. The region also lacks education on this issue, and has very few collaborative networks or examples of successful circular business models. These were elements listed when reflecting on very low advocacy levels for circular policies and circular metrics (Ecopreneur.eu 2019).

An essential part of the circular transition is the need for cooperation between various agents at different scales. Alliances between manufacturers, traders and recyclers will be needed to monitor and extend the life cycle of products/materials and to ensure closed loop cycles. Large companies can leverage their own value chain to promote circular business. They can promote circular economy capabilities, develop circular strategies for their value chains, share and reduce risks for MSMEs. As a result, it will be possible to scale up circular businesses, raise resource efficiency and reduce carbon footprints.

The inclusion of MSMEs in the most different value chains could be an efficient way to promote benefits for companies and for society. In this sense, it is crucial for LAC to involve a wide variety of sectors in the circular transition, such as Buildings & Construction, Plastics & Packaging, Textiles & Fashion, Food systems & Agriculture, Electronics, Vehicles & Transport, Manufacturing, Waste Management, Water, Mining, and Chemicals. Governments in the region must encourage strategies that allow both large incumbent firms and MSMEs to benefit from the shift to circularity, securing the participation and co-responsibility of all actors involved in the supply chain. There is a need to consider strategic planning and policy design for MSMEs by coordinating a medium-term strategy, which contains measurable targets and is anchored in a country's wider circular economic development strategy (OECD, 2019b).

By innovating and increasing their productivity and value proposition, and thereby being able to contribute to delivering more value to customers across different value chains, MSMEs can invigorate local economies, address social inequalities, and create healthier, circular, and more sustainable communities (Burch 2019; OECD 2018a). Moreover, creating new markets for sustainable products/services and secondary materials is crucial to ensure high returns on investments in the region. This is crucial for MSMEs and for the economy as a whole.

Go Circular: the impact of MSMEs

By adopting a circular business model, MSMEs can reduce costs, generate new sources of revenue, promote innovation, increase resource security, and mitigate environmental and social risks.

MSMEs policies must be fully integrated into new strategic development plans, especially regarding circularity. If oriented towards productive transformation, the strategic plans should also identify the targeted typologies of enterprises, sectors, and productive areas, including MSMEs. Attention should be given to defining policy coordination mechanisms and to assuring coherence between objectives, policy tools and budget allocations.

To foster the implementation of circular strategies among MSMEs in LAC, support is needed in terms of finance, business development, hands-on capacity building and network engagement (OECD 2018b). In the interests of promoting inspiration and practical learning, we have selected six case studies of MSMEs that are already adopting circular business models in different LAC countries, sectors and categories.

The cases have been selected primarily considering the four circular business models categories, as well as the 9R framework, geographical representation, and recognition (awards, competitions, etc.). From this perspective, MSMEs' progress has been assessed in terms of government support, acceleration programmes, product design, information and communication technology, partnership development, value chain integration and the different financial instruments. Finally, it is important to highlight that the cases present different levels of data availability.

Learning highlights

- **Innovation ecosystems and business mentoring programs offer great support to MSMEs.** Developing or moving to a circular business model is a gradual process, in which different knowledge and experiences can contribute to providing shortcuts to business success. As observed from the case studies, innovation ecosystems that offer business mentoring and acceleration programs are of great value to LAC entrepreneurs' journeys, as they facilitate knowledge exchange, access to unique contacts and financial resources. Launching regional ecosystems, organized through public-private partnerships, led by government or large organizations, could assist MSMEs with the implementation of circular business models, and facilitate access to public services through better communication with the enterprise community and the provision of orientation courses and assistance services. For instance, CORFO has been an important player in the innovative ecosystem and fostered Algramo's development thrice over. Also, open innovation challenges have been organized to reduce plastic use, such as IDB Group and MIT Solve's "Rethink Plastics Challenge", of which ecoins® has been one of the finalists.
- **Multi stakeholder financial learning.** Governments, large companies, universities and NGOs can develop mechanisms to provide both intellectual and capital support to MSMEs, since most of them will not be able to make their circular journey alone. Private sector knowledge can greatly assist MSMEs' financial learning process. Equipping entrepreneurs with financial literacy from an early stage can allow them to make more profitable decisions throughout their business lifetime. Large companies taking the initiative to provide levers and incentives through their procurement policies, co-design systems beyond different value chains, and incubation/innovation programs could also significantly accelerate capacity-building strategies for circularity. For instance, ecoins® is an example of a social startup that was developed as part of a public-private alliance with the support of Costa Rica's Green Tech program and big companies like PepsiCo.
- **The success of certain circular business models is directly dependent on the adherence and engagement of customers and users. Institutes and class association can be a good bridge.** Involving society at large in the process of testing new business models increases growth potential and reduces investment risk. Individual incentives and demonstration of collective results can contribute to changing consumers habits and behaviors, as well as, increasing their engagement and uptake of new business models. Institutes and sectorial associations can be a good bridge for awareness and engagement of small businesses (associations of traders, local producers, bakeries, restaurants). For instance, EatCloud has engaged multiple stakeholders in its digital platform, ranging from the food industry to agricultural producers, retail, supermarket and grocery stores, as well as restaurants, bars and hotels' associations, which has enabled them to achieve exponential growth in under three years.
- **Design for circularity and remanufacturing are key for developing truly circular solutions. This is important for all company sizes, and different actors can contribute to circular design development.** Regardless of the business model adopted, businesses

must pay attention to the design of their products and services. Extended Producer Responsibility (EPR) schemes, green and circular public procurement policies can offer opportunities for business models that design out waste. Companies should develop capabilities for product redesign, considering modularity, durability and repair. This can be observed in sharing models and refill systems such as Algramo, product-as-a-service programmes, such as Bebbia, product development, such as Tobasa and Ciclo, and platform design, such as ecoins® and EatCloud.

- **Value chain integration can bring additional value and revenue.** Institutions should aim to establish win-win relationships, not only with big brands but also with suppliers of technology, services and products. Collaboration with existing multinationals and large industries can increase consumer engagement contribution to further develop the circular business models and reach new levels of uptake and business revenue. MSMEs can unite efforts with companies that are keen to respond to market needs in order to invest jointly in new packaging material and/or digital technology. This kind of value chain integration and collaboration model can help to reduce and share risks in different parts of the value chain and increase opportunities. Partnerships have been an essential element for MSMEs' scale-up, endurance, productivity and further business model maturity.
- **Corporate investment is a relevant source of funding for circular MSMEs.** Circular MSMEs can be leveraged from large corporations' sustainability-led endeavors. At the same time, companies can accelerate their turnaround by implementing new business model solutions that were first developed by MSMEs. For instance, Bebbia is a product-as-a-service company founded by major water purification player Rotoplas, in Mexico.
- **Financial instruments have the power to drive business model changes towards circular MSMEs.** The financial industry is a driver for change. Tobasa went from "agro" to "bio" in order to be eligible for Terra Capital Investor (TCI) funds (blended finance provided as equity). This means that MSMEs can be prepared to change their business models to get access to new finance lines, reinforcing the role that financial institutions can play in accelerating the circular transition. That is, broadening circularity-linked financial instruments is expected to positively impact the circular transition process.
- **Debentures can be a good alternative for funding MSMEs.** Although the risk perception by investors, due to its reliance in rely on issuers' creditworthiness and reputation, debentures can enable funding for MSMEs considering that this instrument do not require collateral for issuance. The Brazilian company Tobasa raised R\$ 8MM through the Kaeté Investimentos impact fund in 2016, resulting in a tripling of sales in 6 years, where the number of direct employees at the factory doubled, considerably increasing the number of extractive families involved in coconut picking and increasing by more than 100% the native forest areas of babassu palms incorporated into the company's operational process, greatly increasing the Company's socio-environmental impact in its operating region.

4. How can policymakers and financial ecosystem accelerate the circular economy transition?

The transition towards the circular economy demands **a broader view of value generation, new formats of risk assessment, long-term thinking, collaborative efforts, and the need to expand project evaluation methodologies** in order to guarantee **predictability & transparency**. These are crucial elements usually invoked by banks to define **risks and return rates**, and the same approach should be applied to circular economy business models and systemic multi-stakeholder projects.

Therefore, it is crucial for financial and government bodies to integrate circular economy principles and the 9R framework into their decision-making processes, as well as promoting a new perception of value that can fully support a future where circular business models effectively and profitably deliver new products and services to society, while concurrently mitigating the three current planetary crises—climate change, biodiversity and pollution —, and consolidating an economy capable of developing in tune with nature.

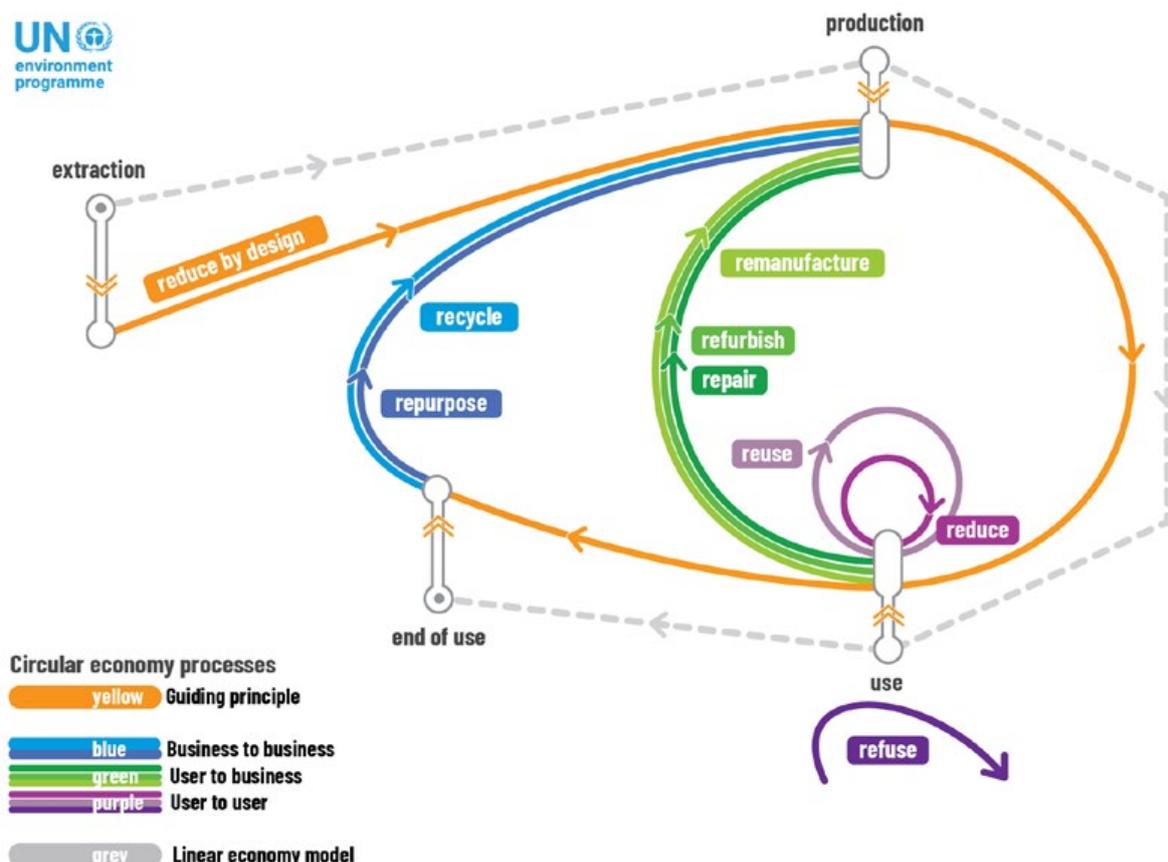
This chapter outlines the recommendations for accelerating the transition to the circular economy in LAC. It is primarily based on present study results, as a follow-up to UNEP's previous report "Financing Circularity: Demystifying Finance for Circular Economies", reinforcing what has been recommended globally, while taking into consideration LAC's context and characteristics. Recommendations stemming from the discussions held during the series of meetings of the Interest Group formed especially for this project have also been taken into consideration.

Understanding the circular value chain

Circularity is to be founded upon new value retention loops or closed loop systems, meaning that a common point of understanding among policymakers, financial industry regulators and financial institutions is that to accelerate the circular economy transition,

a redefinition of the concept of material value is required, as is an improved understanding of circularity's key approach to designing out waste based on different production process formats, as expressed in Figure 4.1 and regarding the following:

Figure 4.1: The Circular value chain



Source: UNEP Circularity Platform³⁴

- **(PURPLE) User to user:** shorter loop, where a product or component remains close to its user and function.
- **(GREEN) User-to-business:** medium/long loop, where a product or component is upgraded, and producers are involved again.
- **(BLUE) Business to business:** long loop, where a product or component loses its original function.

Value creation and residual value

Governments and financial institutions need to understand the key role they play in creating the right conditions for **circularity to happen at scale** following the different production loops.

Reverse logistics whereby waste material at the end of a value chain is processed and reused for compliance purposes will always be evaluated as a very costly process embedded into the linear economy. On the other hand, new closed loop systems

³⁴ Learn more at [UNEP Circularity Platform](https://www.unep.org/circularityplatform).

supported by the value remaining in the waste material transform costs into investments. Therefore, **the higher the residual value** left at the end of the first production cycle, the more likely it is for this material to enter a new production cycle with a **higher return on investment (ROI)**.

A new reverse supply chain is therefore created **when the waste material from one value chain is seen as a source of raw material for another value chain**, demonstrating the key difference between a linear and a circular value chain that is focused on designing out waste and pollution.

Product design

An overall principle established by the UNEP circularity platform is the importance of developing products from the design outset that use less materials per unit of production, and/or during their use. The guiding principle *Reduce by design* influences all stages of the lifecycle of a product or a service: less raw material is extracted, the production has been designed to use less materials, and the consumption patterns and end of life of products and services are influenced by the design in order to lead to less impact and less waste.

However, to ensure that we can transform a costly reverse logistics model into a profitable reverse supply chain, **design processes must expand their boundaries** of analysis to consider not only less impact and less waste, but also the **residual value** remaining at the end of the first production cycle, which guarantees that the material will enter a new production cycle.

In the path towards the circular transition, we must learn how to design products, services and platforms into new systemic boundaries, otherwise known as circular product design. This involves defining how to guarantee residual value in the product after its first use, which is an essential characteristic of circularity, allowing consumers to take care of the product and be responsible for it in the after-use phase.

The use and after-use phases

We have seen before how the 9R framework brings new circular prospects for sustainable production and consumption, allowing us to rethink the way we produce, use and extend products' life cycles.

Therefore, while product design within a linear value chain is based on **cost reduction, quality improvement, customer attractiveness and user experience**, which are all elements of the **product use phase**, sustainable product design with a **circular mindset** necessarily goes beyond to assess product **modularity, new materials and more durable products**, rather than just considering resource efficiency and renewability. **Circular product design** entails a new, broader scenario for designers, considering the use and after-use phases, **potential for entering second markets, repairability and residual value** to justify closed loop systems.

BOX 5: Circular governance as a means for establishing a new economic balance

Circular governance means engaging different stakeholders in the value chain to work together, occupying new roles and responsibilities. In a traditional public governance model, we have a clear division of tasks within the value chain, but to move towards a circular transition, we need to build a **new business development landscape** that includes **new business cooperation formats**, and which promotes **ecosystems combining large, small and medium enterprises**. **Financial instruments must be embedded into new regulatory frameworks to form a new economic balance**. **Transition brokers must help to align different interests into a common objective**, facilitating the shift towards the necessary circular governance, and creating a common agenda capable of shaping a society where more durable, modular and repairable are the norm.

Source: “How network governance powers the Circular Economy. Ten guiding principles for Building a Circular Economy based on Dutch experiences”. Jacqueline Cramer, 2020.

Society in general has not yet properly taken on the responsibility of returning products at the end of their life cycle, or delivering packaging and products to be recycled, allowing materials to enter a new product cycle. Transforming products into services and consumers into users can be a way to shift end-of-life responsibility from the consumer to the producer—a circular business model based on dematerialization, requiring new societal values and attitudes.

Policymakers, financial industry regulators and financial institutions can join forces to promote a broader view of circularity, and together develop the necessary infrastructure for material collection, implementation of new digital platforms, awareness-raising and consumer engagement campaigns, and capacity-building programs aimed at new circular jobs, and which create suitable conditions for companies to generate new products and services.

In summary

At the micro-level—we must include aspects of **process and product/services innovation** focused on the use and after-use phases. We need to be funding projects that are already designed with the reverse supply chain in mind, so material will never end up as waste, as its residual value will ensure it is fed into another supply chain.

At the meso-level—we must **redefine value and scale**, enabling long-term return on circular investments. We need to engage the value chain for both the use and after-use phases. Companies need to start looking at materials as an asset and not only as a physical unit for delivering products, fostering collaboration to identify and develop circular opportunities. Components must return to enterprises as a source of new revenue and reduced process cost. Reverse logistics becomes a reverse supply chain, creating

opportunities for new businesses, value chains and circular jobs. This broader context is all about evolving the decision-making process to consider scale, jobs and the new circular mindset.

At the macro-level—we must create an **enabling environment** and prepare the market for the uptake of the 9R framework, accelerating the financing of truly circular business models and not just parts of the closed loop. This means encouraging policymakers to accelerate the circular transition by implementing public policies that are capable of strengthening the circular mindset. Reuse, repair, remanufacturing and/or sharing models need circular attitudes, values and behaviors. There is no point in funding a repair system if the consumer continues to buy new things.

BOX 6: Economic conditions for the Circular Economy in LAC

In general terms, financing the Circular Economy in Latin America and the Caribbean entails some specific challenges, presenting unique conditions that differ from European conditions:

- The relatively low cost of waste disposal;
- The relative abundance of raw materials and feedstocks;
- Focus on short-term planning and returns; and
- The lack of public policies promoting secondary markets.

Such factors directly affect the willingness of local financial and manufacturing sectors to create or demand solutions for reverse supply chains, making it difficult to capture the residual value of materials in the after-use phase. Incentives dedicated to public policy and fiscal policies must be in place to ensure the manufacturing sector move from virgin to non-virgin/secondary raw materials. Tailor-made financial instruments will create a new balance (or playing field) in the decision-making process for material supply, product design and waste disposal. These policies have also to consider the consumer market, which will have to be educated with new narratives for recognizing the value of products made with recycled and/or secondary materials.

In the following sections, recommendations are provided for both policymakers and financial institutions respectively. They are presented in a “complexity vs. impact” matrix providing a proxy for prioritization.

Criteria applied for complexity assessment (both policymakers and financial institutions):

- i.** New Institutions or Policies required;
- ii.** Dependence on External capabilities;
- iii.** Dependence on Internal capabilities;
- iv.** Multi-actor governance needed;
- v.** Existence of Benchmark.

Criteria applied for impact assessment for policymakers:

- i. If the recommendation was prioritized by the Interest Group (IG);
- ii. Interest Group's Recommendation or overcoming common barriers in LAC;
- iii. Research Learning Highlights;
- iv. Demanded by interviewees;
- v. Creation of new business opportunities.

Criteria applied for impact assessment for financial institutions:

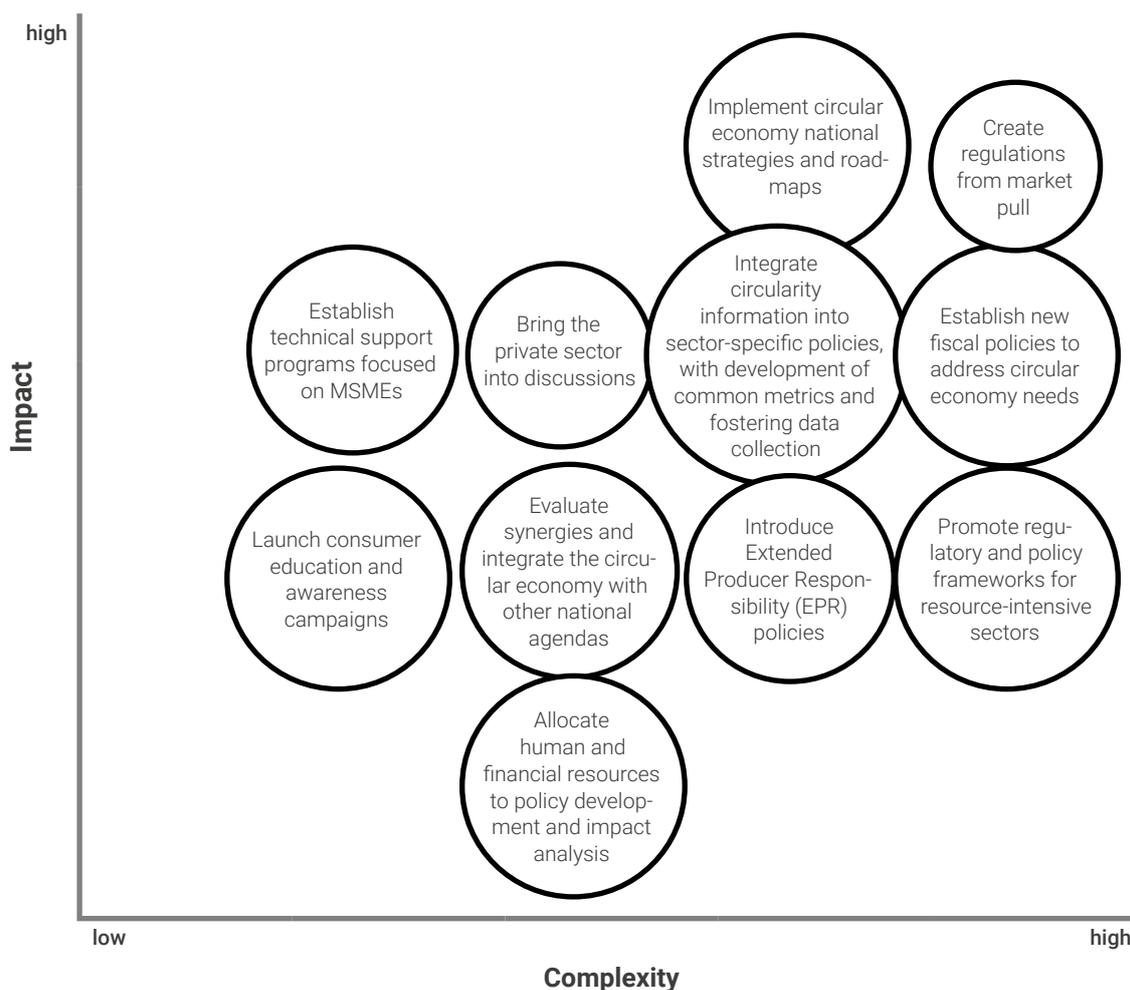
- i. Image and Branding;
- ii. If the recommendation was prioritized by the Interest Group (IG);
- iii. Impact on multiple stakeholders (market);
- iv. Creation of new business opportunities; and
- v. Contribution to Industry "Net-zero Pathways".

Recommendations for policymakers

Policymakers can create the appropriate conditions for the circular transition to occur in the region by implementing measures that involve different stakeholders. These measures include developing new policies and regulations in line with the principles of the circular economy, as well as updating existing policy and regulatory networks in order to strengthen and support the circular transition, as well as urban planning processes, sustainable production & consumption, and procurement guidelines.

The following matrix presents recommendations in a numerical order starting with the recommendation that has **the greatest impact and the lowest complexity**. The intention is to facilitate their prioritization according to each institution's strategic planning process. Through this visual representation, stakeholders can more easily define their own action plan: decide the desired impact and the effort needed to deal with the related complexity, where to start and what tools or support are required.

Complexity x Impact recommendation matrix for policymakers



- 1. Implement circular economy national strategies and roadmaps:** Developing a national strategy provides a common understanding and direction for all stakeholders, facilitates public-private engagement, and is one of the most common recommendations highlighted during the interviews and interest group discussions. A national strategy clarifies the principles that must be followed, the goals for the country, and the actions for different sectors, and will help financial institutions develop circular financing instruments in line with national goals. Countries such as Chile, Colombia, and Mexico have benefited from constructing a national framework for a circular economy, identifying and promoting the engagement of different stakeholders in the agenda, leveraging discussions on circularity's contribution to national development and priority actions for the circular transition.
- 2. Create regulations for market pull:** governments can potentially create the demand for circular products and services through regulations that make them more attractive to companies, such as public procurement guidelines, targets for using recycled content and requirements for product repairability. Such regulations are much more effective in making circular business models more attractive than pushing products and services without formal demand. A positive knock-on effect is a proactive attitude from manufacturers from different markets or sectors keen to bring new technologies or innovative concepts for circular products or services. Also, corporate

capital is likely to be directed to more incentivized sectors, which are supported for instance through tax incentives for leveraging businesses feasibility.

- 3. Establish technical support programs focused on MSMEs:** local government can offer capacity building programs across different territories, create business hubs & awards to promote good practices, and empower entrepreneurs to develop new circular business models such as closed-loop solutions, innovative ways to increase residual waste value, engage with different players and transform products into services. In Chile, CORFO has joined efforts with specialists to provide support and knowledge regarding the circular economy to MSMEs in the program “PYMES en Línea.” Public-private partnerships can also be key to scaling up programs. This recommendation was also included for the financial system, but it is indeed a joint effort with different stakeholders. Circular governance is key to engaging and including different stakeholders in the value chain to work together, redefining roles and responsibilities.
- 4. Bring the private sector into the discussion:** Private and public organizations have a mutualistic relationship whereby they depend on each other to exist: the state relies on the private sector to generate wealth, and the private sector depends on state regulation to produce and sell to the market. In Latin America, discussions of public policies can take a long time to happen and might get disrupted through changes in the government. It is important to promote engagement within resource-intensive industries in Latin America through multistakeholder initiatives, workshops or focus group meetings. Getting the private sector involved in the discussions makes it more likely to get from development to implementation. In Peru and Mexico, forming this kind of working group was essential to align the Mexican Law on Circular Economy and the Peruvian roadmap to implement circular economy behaviors in different sectors.
- 5. Integrate circularity information into sector-specific policies with the development of standard metrics and fostering data collection:** The availability of data on cleaner production agreements, sectoral agreements, and the progress of processes linked to circular economy policies allow planning by policymakers, companies, financial institutions, and civil society organizations. Traceability, the development of standard metrics, and the generation of robust data make it possible to monitor the transition and assess its impacts on society and environment transparently. The systematization of rich data will facilitate traceability, comparability and impact assessment.
- 6. Establish new fiscal policies to address circular economy needs.** Develop fiscal policies to shift the tax burden from human labor to resource use; address equal tax treatment between virgin and recycled materials; harmonize value-added tax regimes to correct market failures; and promote the financial attractiveness of investments in circularity. Tax exemptions and tax compensation are instruments used globally to encourage sustainable industry behavior. This is of paramount importance for financing circularity, as financial institutions tend to assess the taxes to which their clients are subject in order to gauge the potential implications for financed companies’ profitability. This is achieved by examining the potential vulner-

ability of social protection under specific circular economy business models, such as the informality of workers in the resource recovery model. Social benefits from the circular economy should be guaranteed, and informal workers must be trained to enter the labor market and contribute to maintaining products and components, all while working in green jobs with decent conditions and gender equity.

- 7. Launch consumer education and awareness campaigns:** Mass media such as radio, television, newspapers, and social media channels represent important vehicles for environmental education and could educate consumers on consumption models, new behaviors and attitudes. For example, the lower prices of the second-hand market might end up increasing consumption rates rather than promoting sustainable production and consumption. In Chile, the platform “País Circular” was established to disseminate actions and news related to the circular economy, business promotion, and civil society engagement, with the support of universities and global companies.
- 8. Evaluate synergies and integrate the circular economy with other national agendas, including climate:** The development of policies related to the circular economy must consider existing overlaps between different socio-environmental agendas—especially those associated with the use of fossil fuels and renewable resources, biodiversity, pollution, GHG emissions and climate change, the bioeconomy, jobs, and green economic recovery. There is a direct relationship between the use of materials and energy and the socio-environmental agenda. Incorporating the circularity perspective into decarbonization and resource efficiency plans can accelerate circular implementation and lead to a more holistic vision for the future. Chile, Colombia, Costa Rica, Dominican Republic, and México have started to cross agendas and have already included circular economy in their NDCs, as a strategy or goal for meeting their decarbonization commitments.
- 9. Introduce Extended Producer Responsibility (EPR) policies:** EPR policies seek to shift the burden of managing certain waste materials from municipalities and taxpayers to producers, in line with the polluter pays principle, serving as a common mechanism for financing reverse logistics and reinserting materials into the different value chains. Although these policies already exist for certain types of waste in several LAC countries, EPR policies must provide incentives for product lifecycle management rather than focusing only on waste and disposal at the end of their useful life. EPR schemes can create incentives for value recovery options, such as refurbishing, reusing, remanufacturing, reconditioning, and repairing products. Costa Rica implemented EPR for 15 waste streams and, since 2019, end-of-life vehicles, with an EPR bill that pertains to the collection and treatment of packaging waste by waste management systems.
- 10. Promote regulatory and policy frameworks for resource-intensive sectors:** Government should consider incentives for those with a high potential for circularity, and work to realign relevant interventions that are currently counterproductive to the circular economy transition, such as fossil fuel subsidies.

11. Put aside human and financial resources for policy implementation: Enforcing regulations imposes inspection and monitoring costs on the regulator. When regulating the prohibition or provision of incentives for a specific type of material or product geared towards achieving circularity, it is necessary to understand the impact and influence on existing and planned policies, rules, and regulations. Thus, regulations should be created after a Regulatory Impact Analysis (RIA). In Chile, since 2018, the Office of Legislative Implementation and Circular Economy, created by the Ministry of Environment, has supported circular economy activities in the country, bringing together different perspectives and collaborating with the design of sectoral strategies.

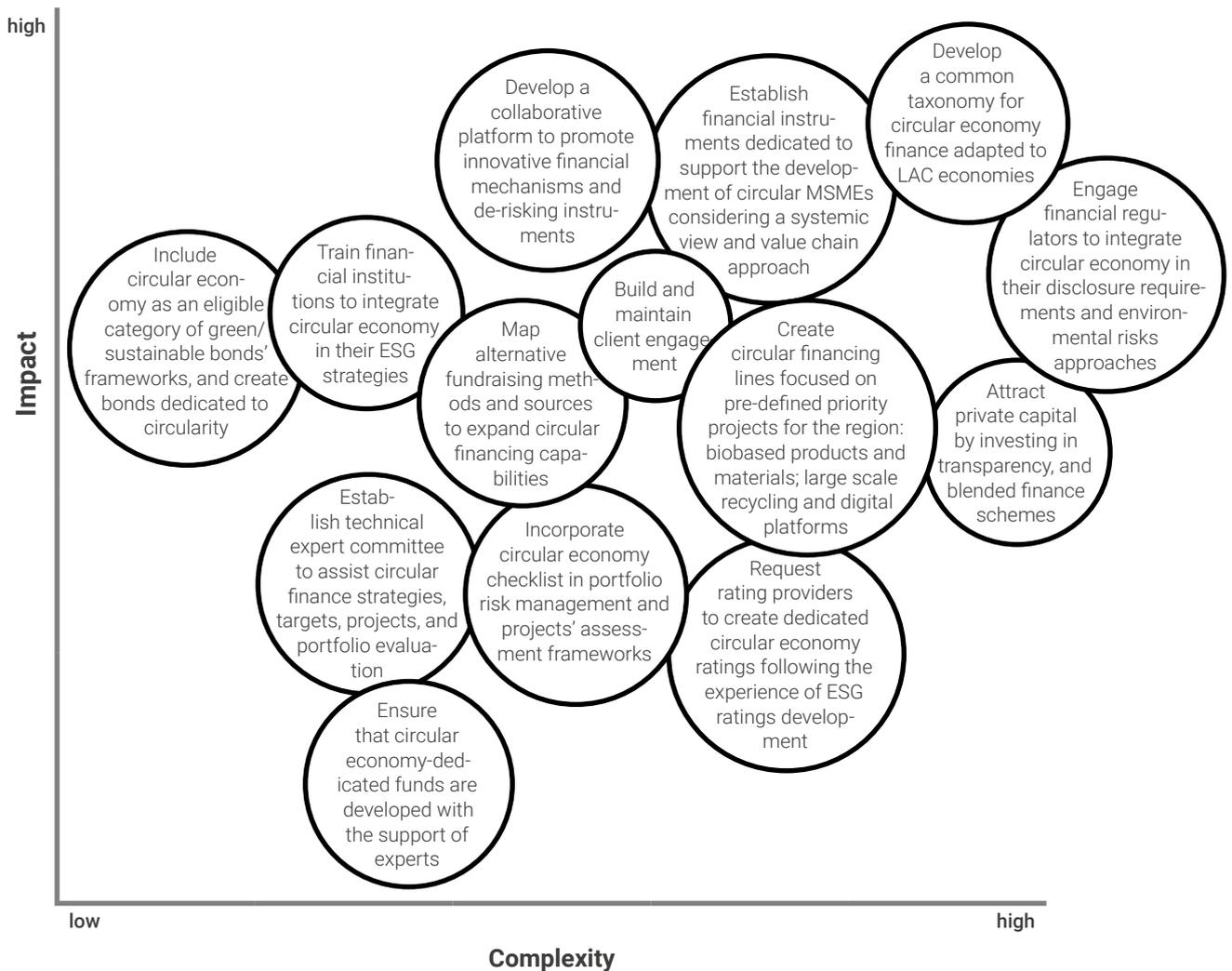
Recommendations for financial systems

The circular finance ecosystem, as presented earlier, is composed of different public and private entities ranging from regulators and supervisors to venture capitalists. To accelerate the circular economy in LAC, each of these agents need to see themselves as part of the solution and carry out effective changes to their strategies, products and processes (European Commission 2019).

The recommendations for the Financial System were grouped into four steps, which are not exclusive but preferential for the circular transition, as detailed in Annex 7 along with suggested stakeholder practices.

Complexity x Impact recommendation matrix for financial systems

Recommendations for the financial system:



- 1. Develop a collaborative platform to promote innovative financial mechanisms and de-risking instruments.** A collaborative platform **dedicated to LAC financial institutions** can bring together innovators and investors to find and inspire new financing solutions for circular economy businesses and projects in the same way that happened in Europe. The European Circular Economy Stakeholder Platform has developed the European Circular Economy Finance Support Platform to increase the knowledge base on circular finance and assist financial institutions with a faster circular transition. The Latin America and the Caribbean Circular Economic Coalition in LAC could be a potential starting point for such discussion.
- 2. Establish financial instruments dedicated to supporting the development of circular MSMEs, considering a systemic view and value chain approach.** Micro, small, and medium-sized enterprises (MSMEs) comprise a significant part of LAC's productive sector and are key for developing circular value chains. However, MSMEs hold the least funding capacity. In that sense, programs like the "National Interdisciplinary Circular Economy Research program (NICER)"³⁵ in the UK, can support circular MSMEs to overcome financial and technical challenges and accelerate their business's feasibility. Banks can start identifying priority sectors for their portfolio and circular economy, and they can also select some value chains and corporate clients to work with.
- 3. Develop a common taxonomy for circular economy finance adapted to LAC economies.** The circular economy agenda is an opportunity for increasing the integration of LAC economies. In a context where there is no formal taxonomy, there is still little clarity among key stakeholders about the definition of the circular economy. Most countries in LAC lack robust measures to promote circular businesses. In that sense, financial institutions and regulators can join efforts with the LAC Circular Economy Coalition and the Southern Common Market (MERCOSUL) for the signature of a treaty, protocol, or agreement among MERCOSUL Member States and Associated States for the development of a common taxonomy for circular economy finance in LAC, inspired by the "Categorisation system for the circular economy—a contribution to the future EU Taxonomy" proposed by the Expert Group of Support to Circular Economy Financing (European Commission 2020). MERCOSUL has accomplished agreements involving Chile, Colombia, Peru, Dominican Republic, and Brazil in the last eight years. None of them regarded environmental issues, however. This recommendation is included in the recommendations for the financial system, but it's a joint effort with different stakeholders. It's key to engage and include other stakeholders in the value chain to work together, redefining roles and responsibilities.

35 The National Interdisciplinary Circular Economy Research (NICER) Programme is a four-year £30 million investment from UKRI to move the UK towards a circular economy. The Programme is made up of five Circular Economy Research Centres, each focused on a speciality material flow, and the coordinating CE-Hub.

- 4. Include circular economy as an eligible category of green/sustainable bonds' frameworks, and create bonds dedicated to circularity. As a business activity criterion, green and sustainable bond frameworks do not necessarily encompass the circular economy.** This is a drawback of financing circular projects using the proceeds of green/sustainable bonds. Moreover, the absence of the circular economy from green/sustainable bond frameworks can hamper the issuance of dedicated bonds, such as Intesa Sanpaolo's "Green Bond focused on Circular Economy" issued in 2019 (Intesa SanPaolo 2019).
- 5. Train financial institutions to understand the connection between circular economy, ESG strategies, and net-zero ambitions:** Most banks are developing internal ESG strategies and setting net-zero ambition targets; therefore learning about identifying circular business models and activities and how they can contribute toward these goals is essential to ensure that financial institutions can make changes to their financing and investment activities, develop circular economy-focused funds, financing solutions and policies, engage with their clients on the topic of circular economy, and as a result accelerate the circular transition in LAC. This is the case of Bancolombia, which is receiving technical advisory and training from the Ellen MacArthur Foundation for fine-tuning its circular economy strategies and internal capacity.
- 6. Map alternative fundraising methods and sources to expand circular financing capabilities in LAC.** To raise proceeds for circular endeavors, financial institutions can amplify funding sources towards bonds issuance, philanthropic organizations, crowdfunding, and consortia with other financial institutions.
- 7. Build and maintain client engagement.** In parallel to developing circular economy-focused products and services, financial institutions should leverage client awareness of the benefits and opportunities of investing in circular business models and provide technical assistance to guarantee client engagement. Expert assistance might be crucial for both financial institutions and corporate investors willing to develop circular projects.
- 8. Attract private capital by investing in transparency and blended finance schemes.** Private capital is essentially a risk avert. In that sense, greater data openness and disclosure and investment process transparency are key for reducing private investors' reluctance to invest in longer-term returns and higher perceived risk; or risks not fully understood or assessed. This is the case of CORFO's circular economy funding programs, which feature thorough documentation and a detailed description of granting process and selection metrics and criteria. The same holds for blended finance schemes, which are the most promising financial pathways for accelerating the circular transition, by de-risking investments and thus attracting private capital. Like EIB's EU Blending Facilities framework,³⁶ which groups regional and thematic investment facilities for blending worldwide, blended finance schemes must be expanded. Similar facilities can be developed in LAC, with circular economy as a key policy area of intervention.

36 Know more about [EU Blending facilities](#).

9. **Create circular financing lines focused on pre-defined priority projects for the region: biobased products and materials; large-scale recycling, and digital platforms.**³⁷ Following the European Commission’s categorization system for the circular economy, this study proposes projects that can have greater potential to leverage circular businesses in LAC based on the four circular economy business models categories. Their selection was based on LAC’s unique conditions, as presented in Box 6, regarding the regional opportunities for investments in the development of biobased products and materials due to LAC’s vast biodiversity, the potential to overcome informality and social vulnerability through investments in capacity building and development of new skills, as well as the correct use of digital technology as an enabler of new business models increasing consumer engagement towards circularity.
10. **Engage financial regulators in integrating circular economy into their disclosure requirements and environmental risk approaches.** It will help identify the information needed by investors, lenders, and insurance underwriters to appropriately assess and price circular economy and climate-related risks and opportunities. For instance, the Central Bank of Ireland has explicitly highlighted in its “Supervisory Expectations of Regulated Firms regarding Climate and ESG risks” that those environmental considerations might also include Circular Economy (Central Bank of Ireland 2021).
11. **Establish a technical expert committee to assist the development of circular finance strategies, targets, projects, and portfolio evaluation.** It is recommended that financiers partner with or hire circular economy experts to ensure a quality assessment of existing investment and financing portfolios and adequate support for establishing metrics and criteria for evaluating potential investees and clients. Second-Party Opinion providers (SPOs) and auditing firms could also support such processes effectively. In addition to that, seeing the increase of companies committing to be net zero by 2050, financial institutions could assist their clients in identifying the circular economy as a solution to achieve net-zero targets and incorporate circular economy principles into portfolio evaluation, lending, advisory, or advisory investment services. A good example is also from Ellen MacArthur Foundation, which has offered technical assistance to CORFO to develop its circular economy strategy and circular economy funding agenda.
12. **Incorporate a circular economy checklist in portfolio risk management and projects’ assessment frameworks.** The list comprises complementary aspects, besides indicators, and metrics, that need to be considered in portfolio and project assessment frameworks. These aspects are a **broader view of value generation** (expanded circular boundaries³⁸), **value chain integration, new formats of risk assessment, long-term thinking, collaborative effort, and closed loops of resources.**

37 See following section “Priority projects to leverage CE in LAC”.

38 Considering the circular boundary means eliminating project externalities, avoiding moving problems from one place to the other. For instance, the investment on a solar energy plant embedding circularity must consider the impact of repairing, remanufacturing, and recycling the solar panels.

- 13. Request rating providers to create dedicated circular economy ratings following the experience of ESG rating development.** Most ESG ratings focus on plain sustainability criteria, not covering circularity measures or circular business models. Since these ratings also central establish indexed funds, the expansion of specific circular economy ratings would foster the creation of further circular economy-focused funds or other financial mechanisms, like BlackRock’s “Circular Economy Fund,” which is rated by MSCI World Select ESG Circular Economy and Renewable Energy Index (MSCI 2019) and others (ECPI 2019; Börse Frankfurt 2020).
- 14. Ensure that circular economy-dedicated funds are developed with the support of Circular Economy experts.** BlackRock’s experience teaches that circular economy-focused ESG ratings are only part of the circular business selection process. Besides the MSCI World Select ESG Circular Economic and Renewable Energy Index, the fund also counts on specialized third-party support for a deeper characterization of the business’s role in advancing the circular economy (Adopter, Enabler, Beneficiary, and Business model winner).

Priority projects to leverage Circular Economy in LAC

Following the example of the European Commission’s categorization system for the circular economy (European Commission 2020a), this study also recommends priority projects that demonstrate greater potential to leverage circular businesses in LAC due to the unique regional conditions of existing biodiversity, a lack of infrastructure for waste valorization and consumer engagement (see Box 6).

The table below presents the priority projects divided into four circular economy business model categories, as used by the European Investment Bank and the European Commission, and based on the Value Hill approach, which is explained in detail in the introductory part of this report. An analysis of related financial instruments, potential financing schemes, synergies with the 9R framework and practical examples for each priority project are also presented.

The types of financing depend on different factors such as the type and maturity of the business, the sector to which it belongs, the link it represents within this sector, its size, etc. Finally, a summary of key assessment elements has been provided considering the broader impact of circular business models and the need to expand the boundary of analysis. This should be seen as a starting point of a checklist demonstrating the need for a broader assessment to reduce risk management, ensure investment returns and regional sustainable development—the circular assessment boundary.

Table 4.1: Priority projects for LAC including associated financial instruments to leverage Circular Economy in Region

CE Business models categories within the value hill by EIB				
	Circular Design Models	Optimal Use Models	Value Recovery Models	Circular Support Models
	Technological demand for alternative raw materials and products with long term value retention	Support better usage and supporting service	Capture Value after user life	Management support and tools
Priority projects for LAC	Bio-based products and materials	Durable, modular, reusable and repairable products	Large scale recycling facilities and biorefineries	Information & communications technologies
	There is a large potential for bio circular economy considering the regional natural ecosystem. Circular design should be considering when developing new bio-based products on the use and after use phase.	New and more qualified jobs in the region could be generated through capacity building and new skills. Durable and modular designed products aiming at repair / remanufacturing and sharing models will bring social benefits for the region.	Waste material from the agricultural sector and post-consumer could be transformed into new raw materials avoiding cities waste and pollution.	Circular business models that require digital platforms, blockchain structures, materials' traceability and sensor systems can maintain and add value to materials and create new consumption experiences.
R-behaviours	Refuse, Rethink, Reuse, Repurpose	Refuse, Rethink, Reuse, Repair, Repurpose, Refurbish and Remanufacture	Rethink, Reduce, Repurpose, Recycle, Recovery	Refuse, Rethink, Reduce, Reuse, Repurpose, Recycle
Examples	Compostable packaging, renewable energy, regenerated fibers, biofertilizers, starch-based packaging, etc...	Computer remanufacturing and leasing, clothes repair, repair cafés, secondhand market, refilling systems, and facilities, etc...	Large automatic facilities for materials separation, biorefineries to produce multiple products, new molecules, energy, and materials from agro-industrial residues for example nanocellulose from mango seeds.	Product as a service and leasing like bike sharing, uber and technologies that are enablers of new consumption habits and business models.

Financial instruments	Grants (For early-stage projects and building capacity), Venture Capital (For business consolidation and rapid scaling-up)	Grants, Loans and Venture capital	Long term loans and Private equity	Venture capital and short-term loans
Financing schemes	Blended finance (for risk reduction and faster market entrance)	Co-finance (loans conditioned to the company in cash contribution to the project)	Co-finance (grants and loans conditioned to the company size and in cash contribution to the project)	More flexible schemes, depending on the business maturity and size
Pathways for risk management, ensure investment returns and regional sustainable development (key assessment elements considering the broader impact of circular business models and boundaries for the region]	<ol style="list-style-type: none"> 1. It is important to guarantee market demand for the bio-based products which can be done by promoting the integration of the value chain, securing the market pull and effective closed loop systems. 2. The technical expert committee must be involved to guarantee systemic evaluation bringing ideas for potential risk sharing partnerships that could be established on the project design stage. 3. The development of national legislation for bans and incentives of virgin materials can reduce the risk and increase the return of investment for bio-based products. 4. Public procurement criteria and private long-term guidelines can accelerate the uptake of this projects 	<ol style="list-style-type: none"> 12. Evaluating societal behavior and potential for consumer cost reduction will ensure the uptake of these projects and will be essential for project success and return of investment. 2. Create local and national awareness raising campaigns and capacity building training will generate interest for this type of circular business models 	<ol style="list-style-type: none"> 1. To calculate the return of investment and a profitable reverse supply chain in LAC, it is important to ensure high residual value for the secondary material. 2. Market demand for natural and recycled materials must be evaluated, as well as the potential for exports. 3. Large scale material collection, sorting and application must be guaranteed. 4. Secure the participation of the technical expert committee for systemic evaluation and assessment of potential partnerships. 5. Having market incentives for the use of secondary material and targets for public sustainable procurement incorporating circularity will improve the conditions of project's return and risk assessment. 	<ol style="list-style-type: none"> 1. The finance analysis must incorporate the full landscape where the solution is being applied to avoid funding partial solutions that do not contribute to a systemic solution at scale. 2. Assess the product associated with digitalization projects offering product as a service business models as it must also be designed for circularity considering the use and after use phase.

Source: Developed by the authors

Annex

Annex 1. Methodology and Assessment Framework

A. This research involved the following iterative stages:

- i. **Literature review:** An exploratory bibliographic search was carried out of technical publications, institutional reports, scientific articles collated on scientific databases, websites of involved institutions, and via online search tools.
- ii. **Qualitative analysis:** To accommodate the need for a broad vision encompassing all relevant information, data was collected not only through secondary sources, but also through 15 in-depth, one-on-one semi-structured interviews conducted with government officials, development partners, financial institutions, development and commercial banks, among other key stakeholders, in order to assess accessibility factors for promoting the circular economy transition in the region.
- iii. **Interest group:** Dialogues with key stakeholders were also part of raising awareness and enriching the findings and recommendations. An interest group was formed to take an active role in providing critical feedback on the report, concurrently helping to establish the foundations for the circular economy stakeholder network in Latin America and the Caribbean. To this end, three interest group meetings were held, where members were able to comment on ongoing research developments, provide feedback and engage in group discussions. The group consists of 15 institutions, all based in one or other of the seven countries that were the object of the study, and they include commercial and public development banks, an environmental ministry, an industrial syndicate and business and educational associations, providing a broad cross-sectoral representation.
- iv. **Process analysis:** Data from the literature review and qualitative analysis were merged with the information collected in the interest group meetings to assess current legislation, gaps and opportunities in the business environment for circular economy investments in Latin America and the Caribbean.

The introduction provides an overview of the circular economy principles based on existing literature to serve as a reference point for our analysis.

Chapter 1 highlights the results of the analysis of the legislative framework for promoting the circular economy, outlining existing public policy instruments that are in line with the principles and strategies of circularity. The role of government institutions in facilitating the transition is highlighted, as well as how the theme has been included in existing policies, presenting a detailed comparative table of the countries analyzed, and discussions on the process of incorporating circular economy-related goals and targets in national sustainable development agendas.

Chapter 2 presents an overview of the financial services sector ecosystem and the financial instruments, providing an outlook of which financial instruments are allegedly employed to advance Circular Economy businesses and projects in LAC. This Chapter highlights the conceptual backgrounds underlying the initiatives mapped, with the criteria embraced to assess and evaluate the circularity of companies, projects and investment portfolios. It also reflects upon the challenges faced by lenders, investors and asset managers to guarantee conceptual adherence and differentiation of Circular Economy from plain resource efficiency and waste management projects.

Chapter 3 introduces policy and financial instruments based on case studies of small and medium companies that are the frontrunners of new circular business economy model development in Latin America and the Caribbean.

Finally, Chapter 4 summarizes the main learnings of the study, pointing out key frontiers for advancing circular economy funding in LAC. Recommendations for policymakers, regulators and financial institutions are presented, with the aim of firmly implanting the circular economy in the region and forging a path closely aligned with inclusive and sustainable development. Recommendations compiled during the research process were evaluated according to two criteria: complexity and impact.

B. Legislation groups for framework analysis

1st group—National Frameworks on Circular Economy

This group is related to a country's view on the circular economy and connection to regenerating, preserving and increasing natural capital, with a view to developing an economy that evolves in balance with nature. Circular economy principles are designed to transform the way goods and materials are produced and consumed in the economy, which could significantly reduce GHG emissions, as well as mitigating the negative impacts of economic activity that lead to valuable resources being depleted and damage to both human health and natural systems. The established framework is mainly related to international agreements and high-level voluntary commitments, and serves as a guideline for a country in strategic terms. Examples of policies at this level of analysis include:

- **National View on Circular Economy**—National Laws, Decrees, Plans, Strategies, Roadmaps and Commitments specifically related to the circular economy.
- **Nationally Determined Contributions (NDCs)**—Some of the latest NDC updates, 2020 version, for the countries investigated (United Nations Framework Convention on Climate Change [UNFCCC] 2022) include circular economy related objectives, for example NDCs from Chile, Colombia, Costa Rica and Mexico.
- **Other National Plans, Strategies and laws mentioning the Circular Economy concept**, such as National Laws, Decrees, Plans, Strategies, Roadmaps and Commitments, regarding decarbonization, bioeconomy, resource efficiency and cleaner production.
- **Participation in the Circular Economy Coalition for Latin America and Caribbean** as a country member.

2nd group—Policies for the circulation of products and materials

To optimize the use of resources by circulating products, components and materials at their highest level of utility at all times, both in their technical and biological cycles, it is necessary to design for remanufacturing, reform and recycling. Products must be able to be recovered or, in case of disposal, re-inserted into the production chain, thus contributing to the economy. Policies in this group were designed to evaluate the production and consumption practices and support circular systems that extend the maximum exploitation of pre-used biological materials, extracting valuable biochemical raw materials, and requalifying them for other applications. Sharing economy models are also considered necessary, as they maximize product use. Extended Producer Responsibility (EPR) is an environmental policy approach in which the producer's responsibility—physical and economic—is extended to the post-consumer stage of a product's life cycle (OECD 2016) and which aims to integrate appropriate labelling related to the environmental characteristics of products and production processes throughout the product chain.

Such EPR policies and schemes could provide incentives to minimize various types of waste at the source, promote more environmentally conscious product design, support public-sector management of waste, and provide the necessary funds to establish proper infrastructure for recycling, according to the needs of each country and industry. Likewise, thanks to the application of EPR rules, and through communication programs and civic participation initiatives, consumers will be encouraged to adopt sustainable lifestyles, especially concerning the disposal of packaging and packaging waste at sites indicated by producers, in the separation at the source, and in making decisions about the acquisition of goods and services with environmental characteristics.

Examples of policies in this level of analysis include:

- **Sustainable Production and Consumption** laws and policies refer to the use of services and related products that minimize the use of natural resources and toxic materials, as well as the emissions of waste and pollutants over the life cycle of the service or product;
- **Extended Producer Responsibility (EPR)** policies, laws and incentives at the national level concerning EPR incentives or regulations;
- **Shared Responsibility Systems** embedded in National Waste Management Laws and Programs.

3rd group—Waste management and pollution reduction policies

Developing national-level waste management policies that combine an environmental vision with a public service component is in the national interest in terms of social, economic, environmental and public health gains. Informal waste collectors still play an essential role in collecting recyclables, and as a result, recycling rates are low (UNEP 2018; Netherlands Enterprise Agency 2021). Waste management policies must be synchronized with the circular economy concept and aligned with local and national government policies.

Waste management policies should also consider the greenhouse gas emission mitigation strategies needed to meet Paris Agreement targets. This is the first sector to be seen from a circular economy perspective, particularly as a way to close the material loop and generate additional value. However, an isolated approach towards waste valorization, process efficiencies, and end-of-pipe solutions could limit circular opportunities and allow industries to continue to generate waste. This level of analysis considers:

National laws on waste management: Waste management laws to the transportation, treatment, waste and disposal of all types of waste, including municipal solid waste, hazardous and hazardous waste, among many other configurations.

Bans on materials with some legally binding aspects, including single-use plastics.

Annex 2. Financial instruments for the circular economy in LAC

In the tables below, one can find more detailed information regarding how financial products operate financial instruments for the circular economy in LAC.

The centrality of circular economy concepts and principles has also been analyzed, with an indication of the degree to which each financial instrument is CE-focused. Four different “levels of centrality” have been considered. An instrument is classified as having a **Low** focus on Circular Economy when the term “circular economy” is mentioned as an area of interest, but a clear definition is not provided, nor does a dedicated financing line for circular businesses or projects exist. This is the case for Kamay Ventures, a corporate venture capital fund founded by Coca-Cola and Arcor. Despite supporting some “projects framed in the paradigm of the circular economy”, Kamay Ventures does not provide a clear definition for CE, nor a dedicated budget line for it.

In turn, an instrument is classified as having a **Partial** focus on Circular Economy when a clear Circular Economy definition is provided, but a dedicated financing line for circular businesses and projects is not present. This is the case with Klabin’s green bonds, whose frameworks explicitly characterize its circular economy approach without issuing bonds dedicated to it.

An instrument is classified as having a **High** focus on Circular Economy when both a clear Circular Economy definition and a dedicated financing line for circular businesses and projects is offered. This is the case with BNDES-EMBRAPII’s joint grant of BRL 10 million for circular economy projects in Brazil.

An instrument is classified as having an **Advanced** focus on Circular Economy when, besides providing a clear Circular Economy definition and offering a dedicated financing line for the circular economy, it also features a transparent selection process based on circularity criteria. This is the case for CORFO’s “Súmate a la economía circular—which, not only allocated CPL 25 million (2019 and 2021) to innovation projects under the circular economy framework, but also clearly states the eligible Circular Economy categories, as well as the metrics and indicators considered in the selection process.

It is also important to emphasize that research conducted was not designed to analyze nor criticize the conceptualization of circular economy articulated by the respective management institutions, but rather focus on identifying which institutions are already making (or have already made) use of the concept in LAC.

Table A.1: Debt-based instruments focused on the circular economy used in LAC

Name (Initiator)	Country	Financial instrument	Investee	Maturity	Circular Criteria/ Circular definition	Circularity metrics	CE Centrality
Línea Sostenible Bancolombia (Bancolombia)	Colombia	Banking Credit	Small, Medium, and large companies	Not specified	CE implies decoupling economic activity from the consumption of finite resources and eliminating waste from the system through design. The circular model creates economic, natural and social capital and is based on three principles: Eliminate waste and pollution from the design outset; Maintain products and materials in use; Regenerate natural systems	Annual water savings; Amount or increase of treated water/year; Tons of waste avoided; Number of jobs generated by the implementation of the project	Partial
Financiamiento Economía Circular (Banco Estado)	Chile	Banking Credit	Small, Medium, and large companies	All	Companies selected by CORFO projects involving the circular economy. Or companies with "Clean Production Agreements" certifications	Not specified	High
Credito Verde (CORFO)	Chile	Long term loan	Companies with annual sales up to UF 600,000	All	Reuse of waste, Remanufacture, repair, closed-loop, recycling, material classification, pre-treatment, valorization, minimization of environmental impacts, technological process improvements, reduction of environmental contamination, reduction of acoustic contamination, eco-design	Not specified	High

Name (Initiator)	Country	Financial instrument	Investee	Maturity	Circular Criteria/ Circular definition	Circularity metrics	CE Centrality
Línea sostenible adelante (Bancóldex)	Colombia	Long term loan	Micro, Small, Medium, and large companies	Not specified	Minimization of the use of virgin raw materials, Reduction of waste, Utilization of sub-products, Date of cycles, Moving of products for services, Eco-design, Eco-industrial parks	Volume treated of waste; Annual ton of waste avoided; Reduction of inputs of raw materials, dating of material flow; Current annual waste management; Annual use of waste; Reduction of raw materials; Reduction of waste	Partial
Klabin 2049 (Klabin)	Brazil	Green Bonds	Large companies	High	Eco-Efficient and Circular Economy Adapted Products, Production Technologies and Processes	Forest productivity; Forest average annual increment; Recycling capacity	Partial
Klabin 2027 (Klabin)	Brazil	Green Bonds	Large companies	High	Eco-Efficient and Circular Economy Adapted Products, Production Technologies and Processes	Forest productivity; Forest average annual increment; Recycling capacity	Partial
Emissão Grupo Sabará (Sabará)	Brazil	Green Bonds	Large companies	High	Eco-Efficient and Circular Economy Adapted Products, Production Technologies and Processes	Annual production of sodium chlorite; Estimated annual volume of treated water; GHG reduction associated with import logistics; energy efficiency gains	Partial
Green Bond CMPC 2019 (CMPC)	Chile	Green Bonds	Large companies	High	Eco-Efficient and Circular Economy Adapted Products, Production Technologies and Processes	Volume of replaced plastic bags	Partial

Table A.2: Equity-based instruments focused on the circular economy used in LAC

Name (Initiator)	Country	Financial instrument	Investee	Technological Maturity	Circular Criteria/ Circular definition	Circularity metrics	CE Centrality
Chile Global Ventures (Chile Foundation)	Chile	Venture Capital	Start-up	Low	Plastic Chain Solutions	Not specified	High
Kamay Ventures (Coca-Cola and Arcor)	LAC	Venture Capital	Start-up	Low	Industrial waste management and impacts on the circular economy sector; applicability in the value chain of investment partners	Not specified	Low
The Circular Fund I (Kapin Capital)	Chile	Private equity	Small, Medium, and Large companies	Medium	Reduce, eliminate waste, improve, reuse, and recycle	Not specified	High
Rise Ventures	Brazil	Private equity	Early growth companies	Medium	Products and services related to the regeneration and preservation of the environment and natural resources. Main sectors: Clean Energy, Circular Economy, Sanitation, Waste Management, Sustainable Mobility, Sustainable Construction, Efficiency in the Use of Natural Resources	Not specified	Low

Table A.3: Hybrid instruments focused on the circular economy used in LAC

Name (Initiator)	Country	Financial instrument	Investee	Technological Maturity	Circular Criteria/Circular definition	Circularity metrics	CE Centrality
FCP innovacion de Ventures (EPM Group)	Colombia	Convertible debt/equity, venture debt	Start-up	Low; Medium	Energy technologies (energytech); technologies for water management (watertech); technology in waste management and circular economy (wastetech)	Not specified	Low
BID Invest (BID)	LAC	Mezzanine	Micro, small and medium (MSME)	High	Not specified	Not specified	Low

Table A.4: Blended finance and Grants instruments focused on the circular economy used in LAC

Name (Initiator)	Country	Financial instrument	Investee	Maturity	Circular Criteria/Circular definition	Circularity metrics	CE Centrality
Latitud R (Fundación Avina, BID LAB, Coca Cola...)	LAC	Blended finance	Start-ups	Low; Medium	Waste recovery; Work of recyclers; Create demand for recycled material; reuse	Not specified	High
Súmate a la economía circular (CORFO)	Chile	Grants	Small, Medium and Large companies	Low	Focus on “extending the useful life of the product and its parts” and “use and manufacture of smarter products” aims to support the development of new or improved technology-based products, processes and/or services within the circular economy.	Savings in electricity consumption between one period and another; Waste generation per unit produced; Reduction in cubic meters of gray or residual water; CO ₂ emission reductions; Tonne of products per cubic meter of water	Advanced
Crea y Valida Rápida Implementación Reactívale foco EC (CORFO)	Chile	Grants	Small, Medium and Large companies	Low; Medium			

Name (Initiator)	Country	Financial instrument	Investee	Maturity	Circular Criteria/Circular definition	Circularity metrics	CE Centrality
Súmate al ecodiseño (CORFO)	Chile	Grants	Small, Medium and Large companies	Low; Medium	It seeks to increase the development of innovative solutions based on eco-design to solve the productivity and/or competitiveness challenges of national companies through its relationship with the Collaborating Entities. Focus, Rethink and Reduce	Standard Cleaner materials; Renewable materials; Materials with lower energy content; Recyclable materials; Weight reduction; Volume reduction; Cleaner / reusable packaging; Reuse of products; Remanufacturing / modernization; Product sharing product to service	Advanced
Pro Innóvate (PRODUCE)	Peru	Grants	Small, Medium and Large companies	Low; Medium	An instrument within the "Hoja de Ruta hacia una Economía Circular" program. Considers clean production agreements	Not specified	Partial
Era-Min 2 (FINEP)	Brazil	Grants	Micro, small, medium and large companies	Low	Circular economy is an industrial economy oriented towards greater productivity of resources, and reducing waste and environmental impacts throughout the entire life cycle	Not specified	High
Fondo Propyme	Costa Rica	Grants	Small and Medium companies	Low; Medium	Circular economy refers to how resources are used to reduce input extraction and reuse elements that would otherwise be considered waste. Promotes reuse, repair, recycling and recovery.	Not specified	Partial

Name (Initiator)	Country	Financial instrument	Investee	Maturity	Circular Criteria/Circular definition	Circularity metrics	CE Centrality
Empresas Focalizadas en Economía Circular— Etapa de Diagnóstico (CORFO)	Chile	Grants	Small and Medium companies	Not specified	According to the EMF, the circular economy is conceived as “a continuous positive development cycle that conserves and values natural capital, optimizes the use of resources and minimizes system risks, managing a finite amount of renewable inventory and flows”.	Not specified	High
Desarrolla Inversión Productiva— Proyectos de Economía Circular (CORFO)	Chile	Grants	Not specified	Medium		Not specified	High
2º Contrato BNDES-EM-BRAPII (Área de foco: Economía Circular)	Brazil	Grants	Industries of all sizes	Low; Medium	Use of mining waste as a source of agrominerals; and waste processing and purification.	Not specified	High
PRORESOL (BANOBRAS)	Mexico	Grant	Reginal and local government	Low	Waste management	Not specified	Low

Annex 3. Practices of recommendations for finance systems

Recommendations were identified by the level of complexity and impact. Table A.5 details examples of practices implemented by actors in the financial system and key stakeholders for this transition. The recommendations for the Financial System were grouped into four steps, which are not exclusive but that are preferential for the circular transition. The colors highlight each recommendation category: (1) engagement and capacity development, (2) capital mobilization, (3) a mobilization interface for producer and business development, and finally (4) recommendations for the development and evaluation of metrics for the circular economy.

Table A.5: Detailed recommendations on practices for the Financial System

Category	Recommendations	Stakeholders	Practices
Engage and Capacity Development	3. Develop a common taxonomy for Circular Economy finance adapted to LAC economies.	Policymakers; Financial Institutions (development banks and private financial institutions); knowledge institutions and circular economy facilitators	Joining forces with the LAC Circular Economy Coalition and the Southern Common Market (MERCOSUR) to sign a treaty, protocol or agreement.
		Financial industry regulators; Financial Institutions (development banks and private financial institutions)	Alignment of existing taxonomies , such as those pertaining to certifying agencies like the Climate Bonds Initiative (CBI)—a green bond certifier that has defined taxonomy in its project classification methodology.
	5. Train financial institutions to understand the connection between the circular economy, ESG strategies and net-zero ambitions.	Policymakers; Financial Institutions (development banks and private financial institutions); knowledge institutions and circular economy facilitators	Entering into partnerships with institutions that specialize in Circular Economy —for example, Intesa SanPaolo has established a partnership with the Ellen MacArthur Foundation and created a Circular Economy Lab, where technical support is provided to clients.
		Financial Institutions (development banks and private financial institutions)	Development banks lead and support technically —for example, the European Investment Bank (EIB) and its European Circular Bioeconomy Fund initiative for commercial banks.
	7. Build and maintain client engagement.	Financial Institutions (development banks and private financial institutions); knowledge institutions and circular economy facilitators	Construction of an approach shared with technical experts on direct operation and client support from financing to other circular finance solutions, as Bancolombia recently made public its intention to launch a CE-focused credit facility.
		Financial Institutions (development banks and private financial institutions)	Promotion of spaces and events for articulation and engagement of clients , such as what CORFO develops with its regional arena through its CE-focused innovation programs.

Category	Recommendations	Stakeholders	Practices
	10. Engage financial regulators in integrating circular economy into their disclosure requirements and environmental risks approaches	Financial industry regulators; Financial Institutions (development banks and private financial institutions)	Engaging with foundations and development banks to develop CE-focused mechanisms for grants, loans and stocks, such as Latitude R.
		Financial industry regulators; Financial Institutions (development banks and private financial institutions)	Common efforts such as those conducted by the European Financial Reporting Advisory Group (EFRAG) on developing the European Sustainability Reporting Standard for Resource Use and the Circular Economy
	11. Establish technical expert committee to assist circular finance strategies, targets, projects, and portfolio evaluation.	Polymakers; Financial Institutions (development banks and private financial institutions)	Creation of a Circular Economy Finance Support Platform for exchanging ideas and a growing body of information, such as the European Circular Economy Stakeholder Platform initiative.
		Polymakers; Financial Institutions (development banks and private financial institutions); knowledge institutions and circular economy facilitators	Creation of a working group with different types of financial organizations and Circular Economy expertise —for example, the FinanCE Working Group, which consists of a Dutch pension service provider, commercial banks, a consulting firm, a private equity firm, development banks, knowledge institutions and circular economy facilitators.
	13. Request rating providers to create dedicated Circular Economy ratings following the experience of ESG ratings.	Financial Institutions (development banks and private financial institutions); knowledge institutions and circular economy facilitators	Conception of a common language regarding the circular economy (CE): the Inter-American Development Bank (IDB)—given its engagement with different Latin American and Caribbean (LAC) economies—demonstrates this potential.
		Financial Institutions (development banks and private financial institutions); knowledge institutions and circular economy facilitators	Engagement in the International Standards Organization (ISO) technical committee in circular economy, which proposes internationally standardized and agreed-upon principles for CE-related terminology and definitions.

Category	Recommendations	Stakeholders	Practices
Mobilizing capital	1. Develop a collaborative platform to promote innovative financial mechanisms and de-risking instruments.	Polymakers; Financial Institutions (development banks and private financial institutions)	The European Circular Economy Stakeholder Platform is another example that brings innovators and investors together to develop and inspire new financing solutions.
	6. Map alternative fundraising methods and sources to expand circular financing capabilities.	Financial Institutions (development banks and private financial institutions)	Identify investment management firms, such as Circulate Capital —investment management firms in South and Southeast Asia that receive investments from USAID and companies like P&G and PepsiCo.
		Financial Institutions (development banks and private financial institutions)	The Inter-American Development Bank (IDB) plays an important role in extending credit to different LAC economies , such as in the case of smaller countries that lack financing capacity.
		Financial Institutions (development banks and private financial institutions)	Diversification of CE-focused investment funds —for example, the EPM Group in Colombia, which not only uses venture capital, but also convertible debt and risk debt, exclusively for the residue management axis.

Category	Recommendations	Stakeholders	Practices
	8. Attract private capital by investing in transparency, and blended finance schemes.	Financial Institutions (development banks and private financial institutions); Policymakers	Development of policies to support Circular Economy in LAC with various funding sources , such as the case of the Cohesion Policy Support for the Circular Economy (2014–2020), which has additional private funding, complemented by other sources of European Union funding, such as Horizon 2020, LIFE and COSME.
		Financial Institutions (development banks and private financial institutions)	Offer private equity and venture capital for exclusive investment in the CE: potential cases are Brazil (Kapin Capital) and Chile (Chile Global Ventures), which have presented venture capital and private equity funds with a partial or exclusive focus on the circular economy.
		Financial Institutions (development banks and private financial institutions)	Expansion of blended finance schemes , such as the EU Blending Facilities framework.

Category	Recommendations	Stakeholders	Practices
	14. Ensure that circular economy-dedicated funds are developed with the support of Circular Economy experts.	Financial Institutions (development banks and private financial institutions)	Initiative on the part of large corporations to create mechanisms that drive circular businesses and solutions , such as Kamay Ventures (Coca-Cola and Arcor).
		Financial Institutions (development banks and private financial institutions)	Funding from commercial banks , such as the European Circular Bioeconomy Fund—the case of the CE-dedicated European Investment Bank (EIB).
		Financial Institutions (development banks and private financial institutions); Policymakers	Co-financing of circular businesses through grants , as is the case for EU and government programs with joint action for biobased industries, led by EIB in collaboration with the European Commission and ECBF Management GmbH.
		Financial Institutions (development banks and private financial institutions)	Incorporation of joint ventures (JVs) to issue green bonds or general securities , as issued in Brazil and Chile in the pulp and paper sectors.
		Policymakers; Financial Institutions (development banks and private financial institutions); knowledge institutions and circular economy facilitators	Creation of a working group with different types of financial organizations specialized in CE , such as the FinanCE Working Group.

Category	Recommendations	Stakeholders	Practices
New Product and business development	2. Establish financial instruments dedicated to supporting the development of circular MSMEs with a systemic view and value chain approach.	Financial industry regulators; Knowledge institutions and circular economy facilitators	Creation of dissemination and information spaces for investors and Circular Economy projects , such as the Circular Economy Financial Support Platform created by the European Commission, which assists investors in finding financing solutions for Circular Economy projects.
		Financial industry regulators; Financial Institutions (development banks and private financial institutions)	Co-financing of companies with the aim of developing circular product prototypes —for example, the Production Development Corporation (CORFO) with technical assistance from the European Monetary Fund (EMF), as part of the “Prototipos de Innovación en Economía Circular” program.
		Financial Institutions (development banks and private financial institutions)	Development of programs that propose innovative solutions to increase the productivity and competitiveness of national companies by using Circular Economy principles and criteria—for example, CORFO’s “Súmate a Inovar foco Circular Economía”.
	9. Create circular financing lines focused on pre-defined priority projects for the region: biobased products and materials; large scale recycling and digital platforms.	Policymakers, Financial Institutions (development banks and private financial institutions)	Establishment of strategic sectors for the development of the Circular Economy in the region , as in the case of the European Circular Economy Action Plan (CEAP) (European Commission 2020c).

Category	Recommendations	Stakeholders	Practices
Metrics	4. Include circular economy as an eligible category of green/sustainable bond frameworks, and create bonds dedicated to circularity.	Financial Institutions (development banks and private financial institutions); Knowledge institutions and circular economy facilitators	Development of communication and reporting mechanisms for the adoption of circular economy practices , such as the Carbon Disclosure Project (CDP).
		Financial industry regulators; Knowledge institutions and circular economy facilitators	Inclusion of Circular Economy in the taxonomy and standards for certification frameworks and institutions , such as the Climate Bond Initiative (CBI), Green Bond Principles (GBP) and the International Capital Market Association (ICMA), which all play an important role in shaping circular economy KPIs.
		Financial Institutions (development banks and private financial institutions)	Inclusion of Circular Economy criteria in existing ESG indices and ratings, or supplement indices for public equity funds that explicitly track companies' Circular Economy performance , e.g. ECPI Circular Economy Leaders Equity Index and the US Circular Economy Index. The Sustainability Accounting Standards Board (SASB) has included the circular economy in its circular economy-related performance indicators.

Category	Recommendations	Stakeholders	Practices
	12. Incorporate circular economy checklist in portfolio risk management and project assessment frameworks.	Financial Institutions (development banks and private financial institutions); Financial industry regulators	Development of a circularity evaluation model to accelerate business models —for example, Circularity Capital, which developed a unique governance and evaluation model that selects projects based on the five business models for the circular economy. CORFO also stands out for presenting a series of metrics specific to each public tender.
		Financial Institutions (development banks and private financial institutions); Knowledge institutions and circular economy facilitators	Efforts to develop an ISO for CE-specific project selection and evaluation (TC 323) —some general standards have been used, such as ISO14.006 and ISO 14.090.
		Financial industry regulators; Financial Institutions (development banks and private financial institutions)	Establishing steps for the bank to define project financing goals , such as the 5-step guidance developed by UNEP-Fi and a working group of banks, who are signatories to the Principles for Responsible Banking (PRB).
		Financial industry regulators; Financial Institutions (development banks and private financial institutions); Knowledge institutions and circular economy facilitators	Capacity building for expert reviewers in portfolio and project evaluation related to circularity —development banks have this potential, in addition to providing credit, to determine the requirements and procedures needed for credit provision and technical assistance.

Source: Developed by the authors

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