

Guide for Financing the Circular Economy in the Dominican Republic



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In coordination with:



Consultancy:

“Mapping of financiers and investors for the circular economy in the Dominican Republic” within the framework of an initiative of the PREVENT WASTE ALLIANCE.

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- [Circular economy – conserving resources, protecting the climate and oceans - giz.de](#)
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Elaborated by:

Address: Av. Vitacura 2909, Las Condes, Santiago, Chile

Web: www.deuman.com

Consulting team:

Rodrigo Valenzuela
Amzy Vallenas
Eduardo Noriega
Fhabrisia de Jesús
Yudelka Flores
Milagros Quillama Flores

Contacts:

Eva Ringhof, Project Director Caribe Circular, GIZ
Peter Sommer, Project Coordinator Caribe Circular, GIZ Dominican Republic
Christopher Speier, Global Programme 'Go Circular' / PREVENT Waste Alliance

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Preface

This guide aims to provide an analysis of the challenges and opportunities that currently exist for investing in the circular economy, as well as practical recommendations for MSMEs and financial institutions to overcome these challenges. It is a result of the collaboration between the German Cooperation GIZ, - the regional project Caribe Circular, the global project GoCircular and the PREVENT Waste Alliance - and the consulting firm Deuman. This guide is the product of the consultancy "Mapping financiers and investors for the circular economy in the Dominican Republic", an ambitious initiative that provides practical guidelines on financial mechanisms and a strategy to improve financing of the circular economy in the country.

The guide was based on the results of the GIZ study on "Finance for the circular economy in low and middle-income countries" (2022), in particular the study on Dominican Republic, and was accompanied by a global consultancy that conducted similar surveys and financial mapping in other countries. This created synergies in data collection and outreach to international stakeholders.

During the execution of this consultancy, workshops were held with a wide range of key actors, including companies from various sectors such as manufacturing, tourism, and construction, as well as representatives of the country's main banks and international funds. Through these interactions, existing barriers to financing the circular economy could be identified, as well as emerging opportunities in this context.

To complement this analysis, personal interviews were conducted with important government and financial entities, such as the Ministry of the Environment, the Superintendency of Banking and Securities Markets, local banks, and multilateral banks such as the IFC and the European Bank, among others. This exhaustive collection of information allowed us to prepare a detailed directory of the main financiers and investors applicable in the Dominican Republic, as well as a technical sheet designed as a practical tool for circular economy projects seeking financing.

Ultimately, the goal of this guide is to serve as an effective communication channel between companies and financiers, thereby facilitating access to the financing necessary to promote the circular economy. This tool will be particularly useful for all those seeking to promote the circular economy in the Dominican Republic and thus contribute to a more sustainable and prosperous future for everyone.

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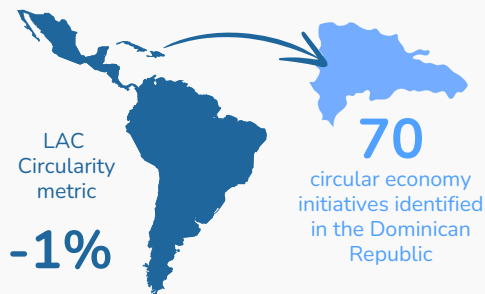
Acronyms

BAU	Business As Usual
CE	Circular economy
GHG	Greenhouse Gases
GDP	Gross Domestic Product
MSMEs	Micro, Small and Medium enterprises
MRV	Monitoring, Reporting and Verification
NDC	Nationally Determined Contributions
CDW	Construction and Demolition Waste
DR	Dominican Republic
REP	Extended Producer Responsibility (acronyms in spanish)

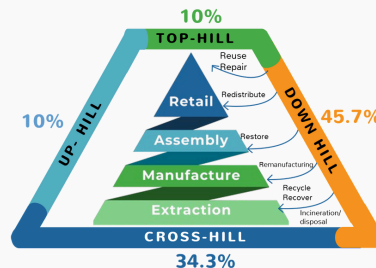
GUIDE FOR FINANCING THE CIRCULAR ECONOMY IN THE DOMINICAN REPUBLIC

The guide seeks to serve as **support to companies and financiers of the circular economy in the Dominican Republic**, providing tools on financing mechanisms to overcome existing gaps.

Circular economy in the Dominican Republic



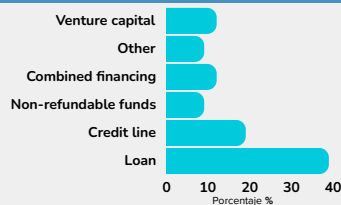
The highest percentage of the initiatives are focused on heat recovery after the use of the products.



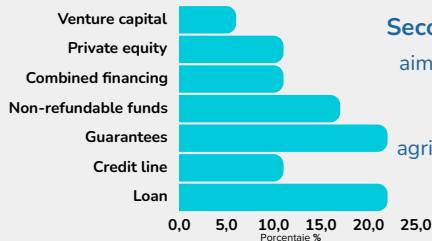
The main **sectors** that have been implementing circular initiatives are:



Financial mechanisms for the circular economy in the Dominican Republic



Second-Tier banking
aimed mainly at issues of climate change, sustainable agriculture, and supply chains



Tools for financing



Green Taxonomy of Dominican Republic

Green Bond Guide

Depending on the availability of financial instruments and the progress in circular economy initiatives, the sectors with **investment opportunities** are:



Barriers and challenges to financing the circular economy



Market

Lack of knowledge of the concept of circular economy and the available mechanisms



Organizational

Lack of indicators and extensive funding application processes



Regulatory

Lack of public policies that address the circular economy



Technical

Limited knowledge for the execution, identification, and evaluation of circular projects

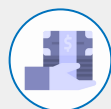
Strategies to improve financing of the circular economy

For companies



Understands the circular economy, the Circular Value Hill outlines the circular business models in the value chain
Design your circular proposal and define indicators that allow monitoring of the characteristic process of your circular project
Diagnose your company and launch yourself into financing opportunities
Look for opportunities aligned to the characteristics of your circular project

For funders



Establish project eligibility systems
The Circular Value Hill describes identifiable characteristics of circular business models
Identify the opportunities and needs of your clients
Through communication strategies about their initiatives and circular challenges
Report the circular impact of your portfolio
Depending on the level of financial experience

For the financing ecosystem



Strengthen the regulatory and political framework at the national, local, and sectoral level
Generate collaborative spaces between different types of local, sectoral, and international actors
Link actors through digital platforms and public-private advice

1. Introduction

In the current global context, the Circular Economy (CE) emerges as an innovative and urgent response to the economic, environmental, and social challenges facing the world. The Ellen MacArthur Foundation defines it as a restorative or regenerative system from design and whose purpose is to extend the life cycle of products. This model converges social, environmental, and economic benefit, redefining growth and dissociating it from excessive consumption and extraction of finite resources. Thus, the concept is based on three principles: eliminating waste and pollution from the design, keeping products and materials in use and the regeneration of natural systems [50].

In the Dominican Republic, the Circular Economy is presented as an opportunity to promote sustainable development and address the country's specific challenges in terms of resource management, environmental pollution, and economic growth. Protecting the environment and natural resources remains a central focus for companies, organizations, local governments, and political leaders, who have prioritized it on the agenda. The adoption of policies linked to the circular economy has a significant weight in municipal development plans and in the private sector [51]. However, the country still faces challenges for proper business development. Although the government has made efforts to support new business initiatives, especially within the framework of the circular economy model [52], many ventures have a limited survival rate in the medium and long term due to systemic problems, such as tax rates, informality, bureaucracy, and difficulties in accessing financing, especially for MSMEs. [53]. Likewise, the successful implementation of the Circular Economy requires solid financial support. Access to funds and investment in circular projects are essential to drive innovation, sustainable infrastructure, and the widespread adoption of circular practices across all economic sectors. Therefore, financing in the Circular Economy is positioned as a key element for the success of this transition towards a more sustainable and resilient economic model [31].

The main objective of this guide is to support companies in the sector, including MSMEs of the Circular Economy in the Dominican Republic, to find financing options adapted to their specific needs, as well as facilitate the work of financial service providers, such as banks, investors and other entities, helping them identify investment opportunities in the private sector related to the Circular Economy.

By providing detailed and contextualized information, this guide allows financing providers to find opportunities that align with their objectives and strategies, thus fostering a more favourable and sustainable investment environment. Additionally, this guide identifies and proposes solutions to overcome existing gaps between the private sector and financial providers in terms of understanding and access to financing for Circular Economy projects. Through key recommendations, it seeks to improve communication and collaboration between both sectors, guaranteeing better access to financing and facilitating the implementation of innovative and sustainable projects.

1.1. Aims of the Guide

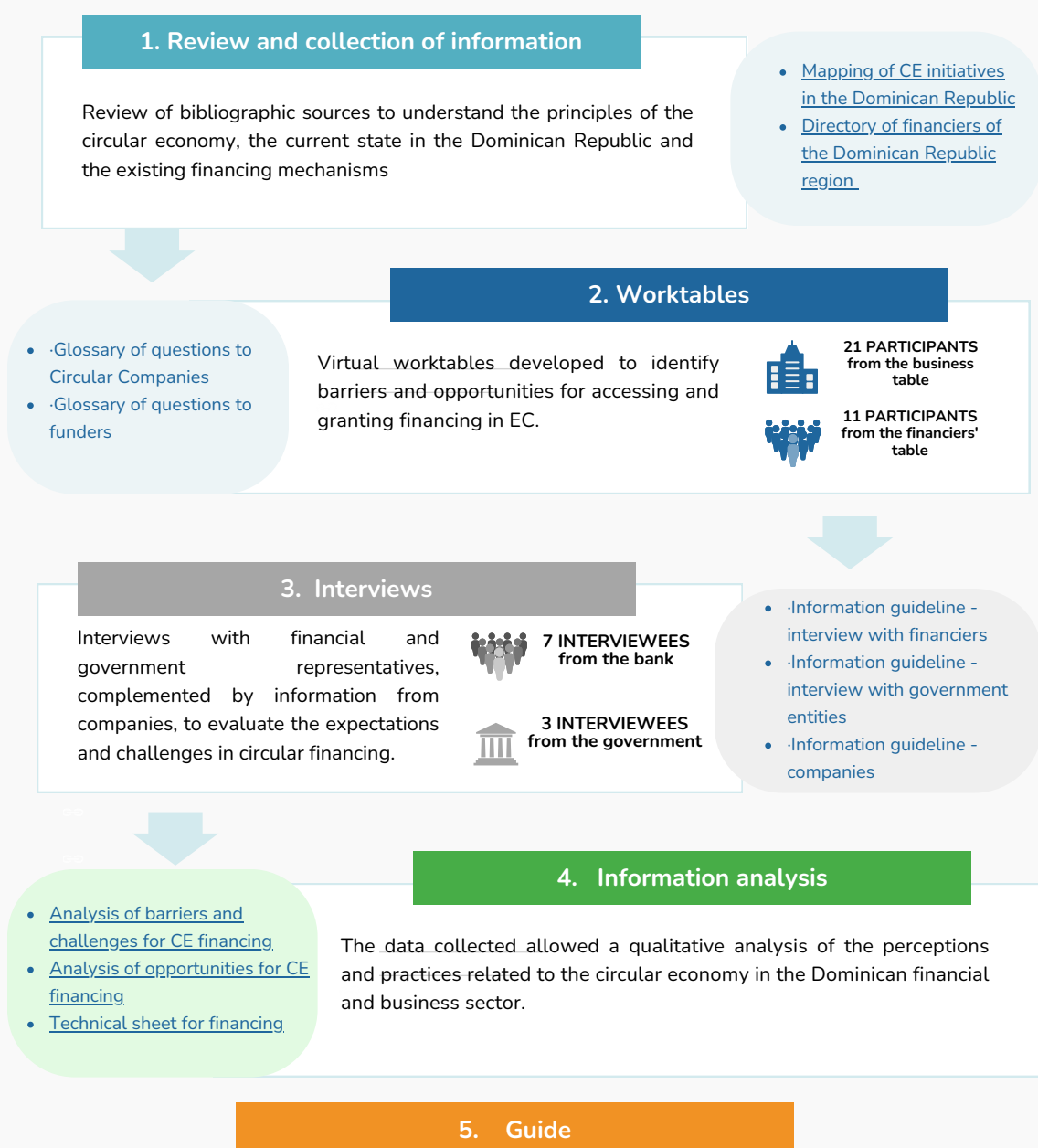
The aims of this guide within the framework of the assistance “Mapping of financiers and investors for the circular economy in the Dominican Republic” are the following:

- **Support companies in the Circular Economy sector in the Dominican Republic** to find adapted financing options, classified according to relevant criteria such as geographic region, sectors, company size, level of business development, types of businesses related to the circular economy, among others, through the use of the Directory of financing sources for the circular economy.
- **Facilitate financial service providers**, such as banks, investors, and other financial entities in the Dominican Republic, to identify investment opportunities in the private sector related to the Circular Economy, being able to find investment opportunities that align with their objectives and strategies.
- **Identify and overcome existing gaps** between the private sector and financial providers in terms of understanding and access to financing for Circular Economy projects, recommending key interventions to overcome them, thus ensuring better access to financing for circular economy projects.
- **Identify financing options** classified according to selection criteria such as geographic location, sector, company size and level of business development (see Glossary), as well as the type of businesses related to the Circular Economy, among others.

2. Methodology

This guide was prepared through four stages explained in Figure 1: review of information, development of working groups, interviews with key actors and analysis of the information collected.

Figure 1. Stages for preparing the guide



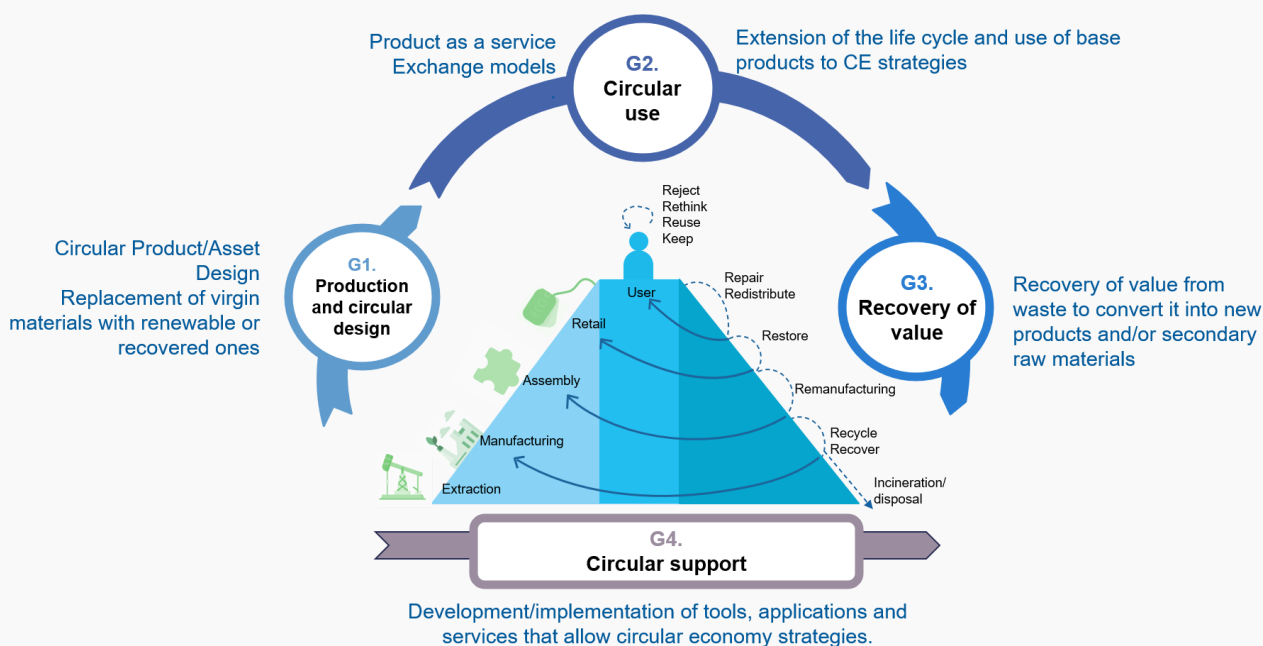
The data collected during this process have been recorded in information guidelines that made it possible to compile the perceptions of different actors under the same theme. This qualitative analysis allows the appreciation of different perspectives, facilitating a deep and descriptive understanding of how the financial and business sectors of the Dominican Republic interact for the development of the circular economy. Analysing qualitatively not only captures data, but also reveals the complexities and nuances that define circular economy practices, initiatives, and knowledge in specific contexts.

3. What is the Circular Economy?

According to the Ellen MacArthur Foundation, the circular economy (CE) is an economic model that is based on three fundamental principles: eliminating waste and pollution, keeping products and materials in use, and regenerating natural systems. Unlike the traditional linear economic model, which follows a "take-make-consume-throw" pattern, CE seeks to imitate natural ecosystems, where waste from one system becomes food for another, incorporating circularity strategies to maximize the value of resources for as long as possible [1].

The European Union presents a categorization system for the Circular Economy that groups a series of strategies according to their participation in the value chain called Circular Value Hill [2]. This system provides companies with an understanding of how to position their businesses in a circular context and develop future strategies for a circular economy.

Graphic 1. CE Categorization System



Source: Own elaboration based on Circle Economy [16]

The "**Circular Design and Production**" model focuses on activities related to the design, production, and distribution of products, located on the upward slope of the value hill. This category includes projects focused on the design and production of products that enable CE strategies, such as resource efficiency, durability, and ease of disassembly and repair. It also covers the development and implementation of process technologies that enable circular strategies, the sustainable development and production of new reusable or recyclable materials, and the substitution of substances of concern and virgin materials [3].

The "Circular Use" model is related to the use phase of a product and seeks to optimize it through services or improvements that extend its useful life. Activities in this group, positioned at the top of the value hill, include the reuse, repair, reconditioning and remanufacturing of products, as well as the renovation and reuse of real estate. Also included are product-as-a-service models, based on leasing, pay-per-use, subscription or deposit return, and the rehabilitation of degraded land or abandoned land [2] [3].










The "Circular Value Recovery" model involves the post-use phase of a product, with activities situated on the downward slope of the value hill. These include separate collection and reverse logistics of waste, recovery of materials from waste, recovery of biomass waste, and reuse or recycling of wastewater. These projects seek to capture the value of used products, previously considered waste [2] [3].

Finally, the "Circular Support" model aims to enable other circular activities or projects and indirectly contributes to increasing resource efficiency. This model encompasses the development and implementation of tools, applications and services that enable circular economic strategies, supporting CE strategies and meeting specific circularity criteria. [3].

3.1. Circular economy and the Sustainable Development Goals

The circular economy model offers various benefits to the fight against climate change, while contributing to the objectives of the Sustainable Development Agenda, especially those of responsible production and consumption (SDG 12), clean water and sanitation (SDG 6), industry, innovation, and infrastructure (SDG 9) and climate action (SDG 13). The list of SDGs related to the circular economy is seen in Figure 2 below.

Figure 2. List of SDGs related to the circular economy

 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>3.9 Reduce the number of deaths and illnesses caused by dangerous chemicals and pollution of air, water, and soil</p>	 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>12.1 Achieve sustainable management and efficient use of natural resources 12.3 Halve global per capita food waste 12.4 Achieve ecologically sound management of chemicals and waste throughout their life cycle 12.5 Reduce waste generation through prevention, reduction, recycling, and reuse 12.6 Encourage companies to adopt sustainable practices and incorporate sustainability information in their reports</p>
 <p>6 CLEAN WATER AND SANITATION</p>	<p>6.3 Improve water quality and significantly increase recycling and reuse 6.4 Increase the efficient use of water resources</p>		
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>7.2 Increase the proportion of renewable energy in the set of energy sources 7.3 Double the global rate of energy efficiency improvement</p>		
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>8.4 Improve efficient production and consumption of global resources</p>	 <p>13 CLIMATE ACTION</p>	<p>14.2 Sustainably manage and protect marine and coastal ecosystems</p>
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>9.4 Modernize infrastructure and industries so that they are sustainable, using resources effectively and with clean processes and technologies</p>	 <p>14 LIFE BELOW WATER</p>	<p>14.2. Gestionar y proteger sosteniblemente los ecosistemas marinos y costeros.</p>
		 <p>15 LIFE ON LAND</p>	<p>15.1 Ensure the conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems</p>

Source: Own elaboration based on Base [4]

4. Current state of the Circular Economy in the Dominican Republic

According to the Circularity Gap Report 2023, the economy in Latin America and the Caribbean is largely linear, with a circularity rate of less than 1% and an average consumption of 12.4 tons of virgin raw materials per capita per year, which negatively impacts the ecosystems and local communities [5]. In response, the circular economy is proposed as a solution to achieve climate objectives and the most efficient use of resources, promote innovation, improve competitiveness, reduce costs, and generate new business opportunities [5]. ECLAC reports an increase in the adoption of policies and legislation that promote circular practices, especially in waste management and extended producer responsibility [6]. Business initiatives and commitments such as the Latin American and Caribbean Circular Economy Coalition and the PREVENT Waste Alliance, which includes the participation of Dominican organizations such as AIRD, seek to increase knowledge and facilitate access to financing for governments and SMEs, promoting innovation and the implementation of specific projects [7] [8].

The concept of Circular Economy in the Dominican Republic was introduced into the national discourse around 2017, highlighting the importance of responsible consumption and production to achieve the Sustainable Development Goals. For this reason, the draft circular economy roadmap for the DR prioritized solid waste management, cleaner production, and resource recovery [9], marking the first step to transform economic systems and address global sustainability in the country.

According to the report “The urban solid waste market in the Dominican Republic”, the current approach to the circular economy in the country focuses on solid waste management, where the need for adequate infrastructure, changes in the national vision and investments create opportunities applicable to the entire production chain [10]. For this reason, the private sector has promoted various circular economy initiatives in areas such as manufacturing (such as the production of plastic containers and packaging), tourism, construction, agriculture, and particularly renewable energy [11].

4.1. Regulatory framework for the Circular Economy

The regulatory framework of the Dominican Republic shows the integration of approaches related to the Circular Economy in different stages of the productive chain, such as the sustainable use of natural resources to the management of solid waste, through the General Law on the Environment and Natural Resources (Law 64-00) [12]. On the other hand, the Law on Comprehensive Management and Co-processing of Solid Waste (Law 225-20) allows the principles of circular economy to be reinforced through prevention, eco-efficiency and producer responsibility, promoting the optimal use of raw materials, the integration of recycling in the formal economy and the creation of financial incentives for investment in waste management [13]. Additionally, the National Development Strategy (END 2030) [14] and Nationally Determined Contributions (NDC) [15] provide an initial framework for establishing objectives related to sustainable production and consumption, comprehensive waste management and transparency in the implementation of measures related to the circular economy. Table 6 of the annex presents in more detail the analysis of the relationship of this regulatory framework with the Circular Economy.

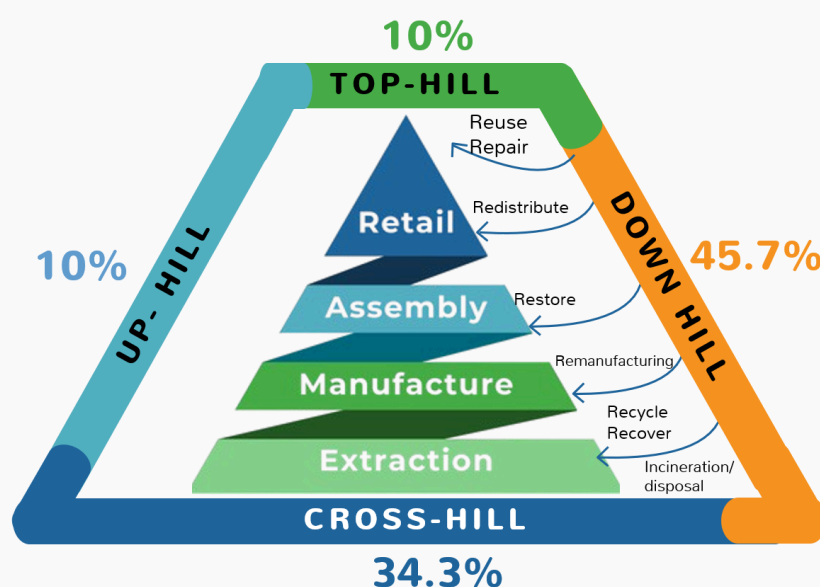
Although these policies do not explicitly mention the circular economy, their objectives aligned with environmental sustainability and efficient resource management are consistent with the principles of this economic approach. In addition, these lay the foundations for specific regulations, such as REP legislation, WEEE management, and others that can be viewed in the Mapping of circular economy initiatives in the Dominican Republic.

4.2. Circular economy in economic sectors

This section details the progress made in terms of the circular economy by the economic sectors of the Dominican Republic, taking as reference the sectors identified in the document "Current Situation of the Circular Economy for the Development of a Roadmap in the Dominican Republic" and Nationally Determined Contributions (NDCs). Additionally, a mapping of circular economy initiatives was conducted in the various sectors of the country, based on information collected both from secondary sources and from working groups conducted with the actors involved in said sectors. The mapping of initiatives considered the projects and business models related to the circular economy (See Section 2) carried out mainly by companies, or where they have had participation. The mapping identified a total of 70 initiatives conducted by companies or in collaboration with other public organizations or multilateral organizations. These initiatives were categorized under the European Union categorization system (See Section 3).

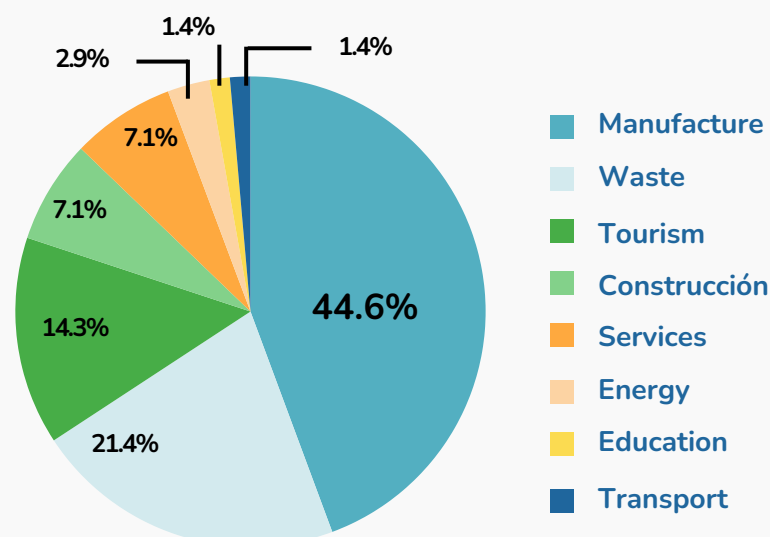
The mapping identified that the circular economy initiatives in the Dominican Republic are located mostly (45.7%) in the "G3. Value recovery" according to the European Union Categorization System. On the other hand, the sector with the highest percentage of initiatives is the manufacturing sector, with a participation of 44.6%, followed by the waste sector with 21.4% and the tourism sector with 14.3%. Figure 3 and Figure 4 outline the distribution of percentages of circular economy initiatives according to category and sector.

Figure 3. Circular Economy initiatives by category of the circular value chain



Source: Own elaboration based on Circle Economy [2]

Figure 4. Circular economy initiatives by sector



Source: Own elaboration

To know the details of the 70 mapped initiatives, you can consult by clicking on the following link to the [Circular economy initiatives in the Dominican Republic](#)

4.2.1. Manufacturing Sector

According to the country's vice presidency, local manufacturing represents around 10% of the GDP, where the food, plastic and packaging, paper and cardboard, and textile industries stand out as the main subsectors [16]. The collaboration between multilateral organizations, the government and the private sector resulted in the development of roadmaps that seek the implementation of measures and guidelines for sustainable production and consumption, as well as the management of plastic packaging waste. These roadmaps apply to manufacturing subsectors. The objectives of the roadmaps are shown in Figure 5 and Figure 6.

Figure 5. Route map for plastic packaging waste



Source: Own elaboration based on AIRD [17]

Figure 6. Sustainable production and consumption roadmap

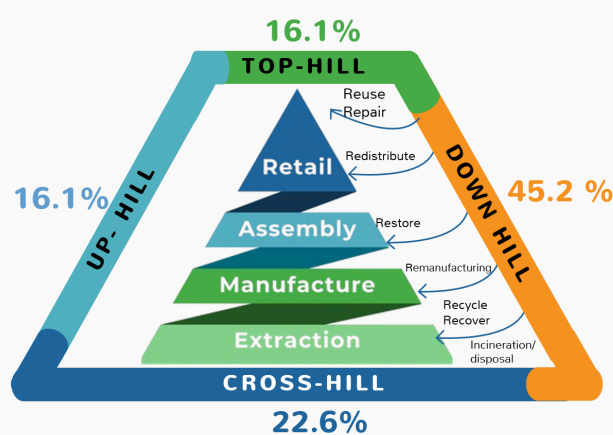


Source: Own elaboration based on UNDP [18]

Regarding the agents that promote Circular Economy (CE) initiatives in the sector, the participation of the private sector stands out with 83.9%. Multi-stakeholder alliances contribute 9.7%, while government and academia contribute 3.2% each. The sector's initiatives can be seen in the downloadable list mentioned in the previous section.

Figure 7 presents the distribution of the initiatives developed in the manufacturing sector according to the categories of the Circular Value Hill, demonstrating the orientation towards value recovery at 45.2%, followed by circular support at 22.6%.

Figure 7. Circular initiatives in the manufacturing sector by category of the circular value chain



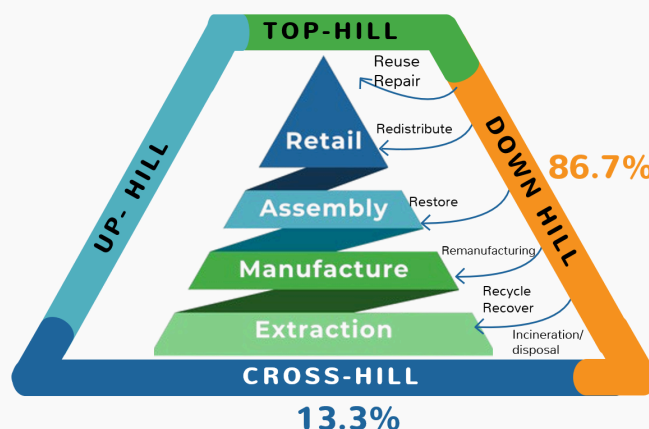
Source: Own elaboration based on Circle Economy [2]

4.2.2. Waste Sector

Solid waste is considered transversally in this document, due to the problem it represents within the Dominican Republic. Each inhabitant produces 650 kg of solid waste per year, which means that the country is generating more than 7 million tons of Municipal Solid Waste annually, and the infrastructure for management and collection is in an initial stage [10], which represents an opportunity for the circular economy, promoting its return to the value chain through incentives and obligations established by Law No. 225-20 [13].

This is how this sector presents in RD, initiatives based on recycling and value recovery, coming 66.7% from the private sector, 20% from multi-actor alliances and 13.3% from research and academia. In Figure 8 it is observed that, according to the European categorization system, 86.7% are oriented towards value recovery, while the remaining 13.3%, towards circular support.

Figure 8. Circular initiatives in the waste sector by category of the circular value chain



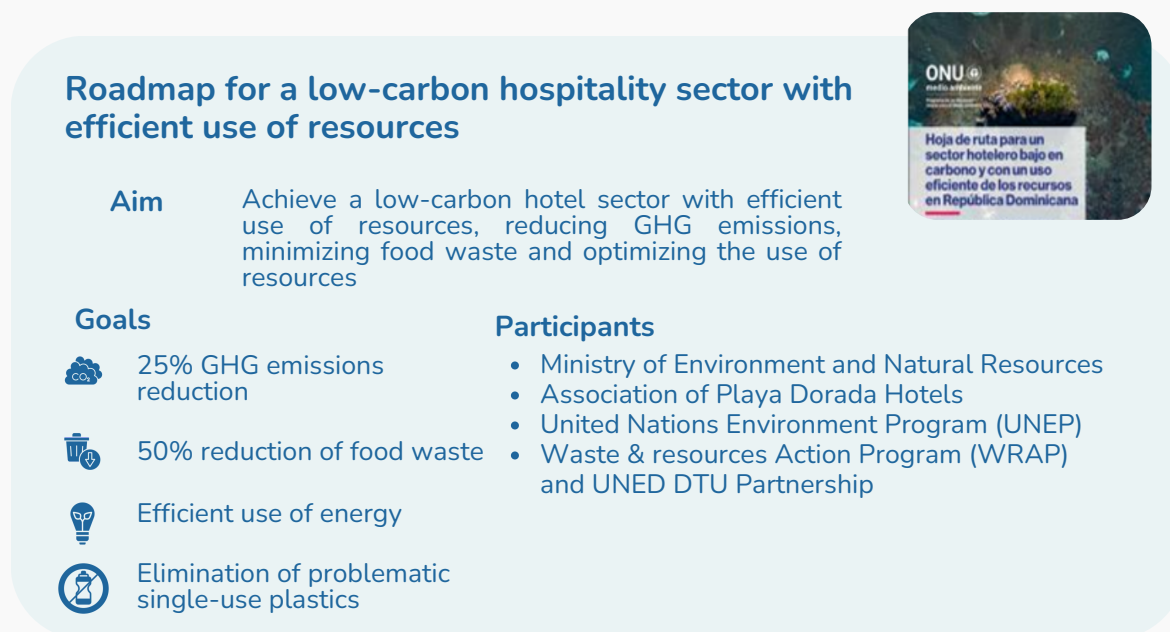
Source: Own elaboration based on Circle Economy [2]

4.2.3. Tourism Sector

In 2022, the tourism sector in the Dominican Republic contributed 7.8% to GDP, facing significant environmental challenges [19], which are aggravated by the constant flow of visitors (5.8 million in 2022) [20] [21]. Despite these challenges, the sector presents opportunities to implement Circular Economy strategies, which could reduce operating costs, increase competitiveness, and differentiate the offer in the market [5].

Given the close relationship between tourism and the quality of natural and cultural resources, as well as current environmental challenges, the implementation of sustainable practices is key to benefit the environment and strengthen the resilience of the tourism sector in the long term, highlighting the advance of sector with the implementation of the Roadmap for a low-carbon hotel sector with efficient use of resources in the Dominican Republic (Figure 9).

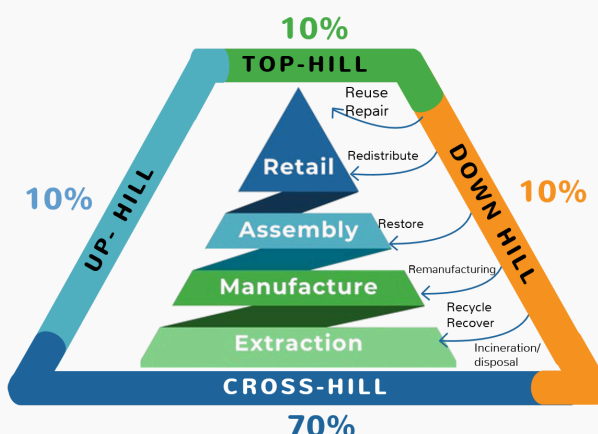
Figure 9. Roadmap for a low-carbon hospitality sector with efficient use of resources



In Tourism, 80% of the circular economy initiatives and projects mapped come from the private sector, while 20% come from multi-actor alliances. Among the initiatives, the application of support and dissemination programs for the circular economy stands out through forums, meetings, and private and public-private management plans, as well as the application of circular solutions within its processes, such as the replacement of disposable bathroom amenities, recycling of the waste generated, sustainable constructions, among several others where the work with its suppliers stands out for the supply of products and services that comply with the principles of the circular economy. It also highlights the promotion of the inclusion of the local community as an advantage to the application of these initiatives, associated as providers of some of these circular solutions.

As seen in Figure 10, the initiatives are focused almost equally on the four product categories according to the Circular Value Hill: 70% on circular support due to the service nature of the sector, and 10% on recovery models, circular design and circular use.

Figure 10. Circular initiatives in the tourism sector by category of the circular value chain



Source: Own elaboration based on Circle Economy [2]

4.2.4. Construction Sector

Construction, which represents 17% of GDP and employs 8.3% of the workforce, is a key sector for economic growth in 2022, according to the Central Bank, [23], and the Ministry of Finance [24].

Construction and Demolition Waste (CDW) is considered special waste, although only some elements such as foam and certain packaging are subject to extended producer responsibility [20]. The figures for the generation and treatment of CDW are detailed in the Road Map for CDW in the DR (See Figure 11), where the public sector is responsible for 28.78% of the generation.

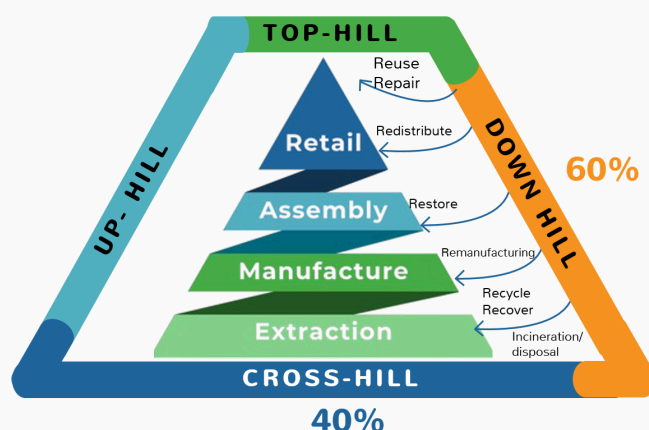
Figure 11. Road Map for Construction and Demolition Waste in the Dominican Republic



Source: Own elaboration based on AIRD [25].

As a sector related to circular economy initiatives, 80% of them come from private sector actors and the remaining 20% from multi-actor alliances of public-private origin, including plastic remanufacturing programs in construction, digitalization for efficiency in the construction process, reintegration of materials and constructions with recycled materials. The initiatives are focused on two categories of the Value Hill Circular (Figure 12): 60% to circular use recovery models, and 40% to circular support.

Figure 12. Circular initiatives in the construction sector by category of the circular value chain



Source: Own elaboration based on Circle Economy [2]

4.3. Barriers to the development of the Circular Economy

In the Dominican Republic, various barriers have been identified that affect the business, government and civil society sectors in the development and implementation of circular practices. These barriers were reviewed in the first stage of the project, where a review of secondary sources at the national and regional level was conducted, as well as the development of working groups and interviews with representatives of the private, public and financial sectors.

In the case of the Dominican Republic, there are **regulatory** barriers that lie in the need for a specific political framework that adopts the Circular Economy approach in the value chain in a way that encourages the creation of new circular business models [26] considering the circular design of products and services, the optimization of use and waste recovery. On the other hand, local banks perceive a competitive disadvantage of these initiatives compared to traditional linear models, because the latter do not consider other types of externalities within their price, for which complementary regulations are needed to facilitate the application of regulatory and tax incentives or other attractive offers that promote the Circular Economy [9].

Barriers in the market are also highlighted, such as the attitude of buyers and final consumers who prioritize traditional products and services over circular ones due to price competitiveness in the market [16]. Likewise, the general lack of knowledge of the Circular Economy on the part of end consumers is a barrier mentioned during the workshops (T1) and interviews (BI; BL). According to the Diagnosis of the current situation of the CE, the perception that the Circular Economy does not offer a substantial competitive advantage and the cost-benefit ratio for its implementation further complicate the transition for many companies [9]. This is related to the costs of technologies for the circular transition, which, according to the comments collected from the private sector in the working groups, are not yet considered economically viable, requiring incentives or programs that promote research and innovation, such as the analysis of new substitute materials for plastic, waste processing technologies for their return to the value chain, among others [9].

Regarding **organizational barriers**, companies face financial, structural and management challenges. Switching from linear to circular processes requires significant investment in equipment adapted for remanufacturing and reuse, in addition to facing the limitation of human capital trained in circular practices [26]. On the other hand, according to the results of the “Sustainability and Green Economy Monitor in MSMEs, 2022”, the MSMEs surveyed highlight the need for the implementation of financial instruments and training in the green economy as support opportunities for the promotion of actions in the ecosystems of the region [27].

Regarding **technological barriers**, these represent an important challenge considering two perspectives. Thus, the limited availability of technology and data for materials traceability makes it difficult to collect the information necessary for the implementation, development, and monitoring of circular practices. Finally, **supply barriers** are identified related to the characteristics of the supply chain of the different economic sectors of the country. If we refer to circular business models for recovering plastic waste, it is still a challenge to collect a sufficient amount of recoverable waste to ensure the viability of the business model. In the Dominican Republic, most of the recovered raw materials end up in landfills, which suffer from deficiencies in their management [9]. According to the diagnosis for the National Sanitation Strategy, this is associated with the population's lack of awareness about responsible consumption and tax rates on organic materials, which represent additional obstacles along with the high costs associated with inputs and waste management that Clients are not yet willing to accept [28].

5. Financial mechanisms and investment opportunities for the circular economy in the Dominican Republic

5.1. Financial instruments for the circular economy in Latin America and the Caribbean

The Circular Economy (CE) emerges as a fundamental response to the environmental and economic challenges facing Latin America and the Caribbean. In a region rich in natural resources, but also marked by socioeconomic inequality and pressure on ecosystems, the transition towards a more circular economic model has become a priority for governments, companies, and civil society alike.

In this context, financing for the Circular Economy has acquired unprecedented importance. As countries in the region seek to address the climate crisis, the loss of biodiversity and the growing scarcity of natural resources, **there has been a significant increase in the availability of funds aimed at promoting initiatives** in various economic sectors, leading each increasingly public and private institutions include the circular economy in the thematic areas of their financial products and services. For example, the European Investment Bank (EIB) and the most important public financial institutions of the European Union launched the “Joint Initiative for the Circular Economy”, with the aim of financing at least 10 billion euros in projects in agriculture, industry and services, mobility, urban development and waste management and water treatment through loans, capital investments, guarantees and technical assistance [29].

Likewise, IDB Invest, the German Development Cooperation (GIZ) and the Peruvian Federation of Municipal Savings and Credit Banks (FEPCMAC) have begun the design and pilot for the implementation of a product for the financing of circular economy projects for micro and small businesses in Peruvian municipal savings banks [30]. Innovation finance and green finance are capable of unlocking financing for new technologies that can de-risk circular business models in the long term; however, to support a new society without waste and pollution, both have limitations.

Circular finance requires a systemic multi-stakeholder approach, necessarily evaluating the manufacturing and subsequent use of products phases, as well as the value of secondary markets, which can generate new financial returns and encourage financial institutions to direct efforts towards rethinking finances, guarantees and commercial relationships [31].

In the region, actors such as multilateral development banks, national development banks, commercial banks and private equity companies play a key role, which contribute to the financing of circular initiatives through debt, equity, hybrid or blended and non-refundable funds [31].

Among the debt mechanisms, Bancolombia's Sustainable Credit Line stands out, which finances energy efficiency and cleaner production projects and offers technical assistance for project identification. Another debt instrument that has been successful in the region is green bonds, the issuance of which more than doubled in less than two years from 2019, while sustainability-linked bonds have grown considerably since their creation in 2016 [32].

On the other hand, among the capital mechanisms, the Chilean private equity firm Kapin Capital stands out, investing in initiatives related to natural resources, including circular business models [32]. Hybrid or blended financing mechanisms involve bringing together public and private resources to finance projects that are usually large-scale, where the regional multi-sector platform Latitud R stands out, which connects actions, resources and knowledge of the public, private, business, academic and civil society [32]. Finally, non-refundable funds include the Innóvate Perú and PROPYME programs and the Production Promotion Corporation (CORFO) in Chile, which are promoted by public organizations and provide resources to support the growth of circular initiatives [32].

Currently, the circular financing ecosystem in Latin America and the Caribbean is still in the development stage, with Chile being the leading country in the region. This is explained by the various actions that the country has conducted within the framework of the circular economy, such as the inclusion of this concept in the climate agenda, the development of extended producer responsibility laws, laws for solid waste management with a focus on single-use plastics, as well as policies for the inclusion of grassroots recyclers. Likewise, the country has addressed the different waste streams through initiatives such as the National Organic Waste Strategy and the National Construction and Demolition Waste Strategy. In addition, Chile has the Circular Economy Roadmap 2020-2040 and its development agency, CORFO, has gained prominence in the region for its innovation programs focused on the circular economy, with financial instruments such as green credits and subsidies such as “Súmate a la economía circular (Join the circular economy)”, “Súmate al ecodiseño (Join ecodesign)”, “Territorio Circular (Circular Territory)” among others. Likewise, the issuance of green bonds by the Chilean company dedicated to the production and marketing of wood, CMPC, stands out [31].

In that sense, aspects such as developing a green taxonomy and an environment of cooperation between companies, banks and the government can lead to greater financing opportunities. Particularly, this last actor can contribute through the development of policies and incentives, which, added to training programs and the exchange of experiences from other countries, can favour a more sustainable investment environment [31].

5.2. Current status of circular economy financial instruments in the Dominican Republic

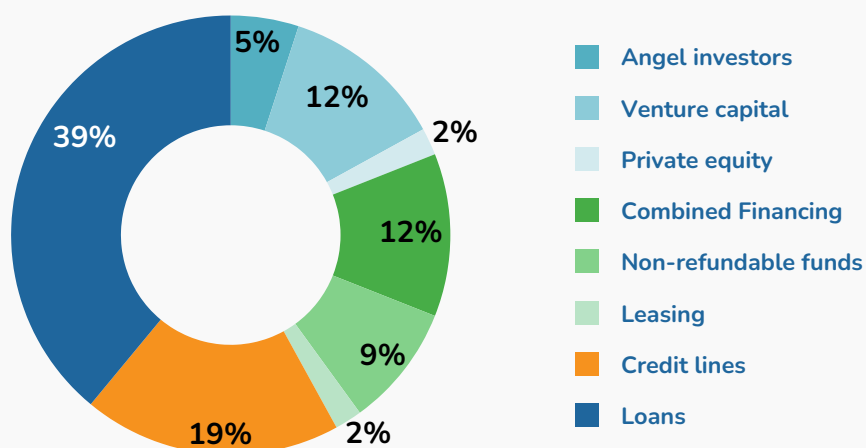
The circular economy stands out for being a model with the potential to bring economic, social, and environmental benefits to the Dominican Republic; however, being a new concept, currently green financing provided by local banks, both state and private, does not yet consider circularity criteria.

In this sense, in the workshops held, the participants highlighted the **use of own funds** as the main source of financing for initiatives related to the circular economy.

However, throughout the diagnostic process, the support of multilateral organizations has been mentioned at least once, such as the Korean Rural Development Administration, the sustainable co-financing mechanism for the food industry in Latin America, the Caribbean and Spain FONTAGRO, the Inter-American Development Bank (IDB), IDB Lab and FONDOCYT for the manufacturing sector; while companies in the manufacturing, tourism and construction sectors highlighted the importance of seed capital, obtained mainly through entities such as the Banreservas bank.

Based on an exhaustive search, a **total of 43 financing mechanisms were found in first-tier banks**, as presented in Figure 13, of which it was identified that 3 institutions had adopted the circular economy as an area of action. The most common green financing mechanisms are debt mechanisms, particularly loans (39%), followed by lines of credit (19%), with local banks being the main providers of these products with more than 50% share. According to the Association of Multiple Banks (ABA), the latter have focused on the financing of renewable energies such as electricity generation plants, photovoltaic panels (34%), windmills (26%) and others (1%). [33]. This coincides with the diagnosis conducted, where financing focused mainly on renewable energies was identified, as well as a growth in portfolios related to electromobility and energy efficiency.

Figure 13. Financing mechanisms available in first-tier banks



Source: Own elaboration

Regarding external financing, through multilateral organizations or international banks, a total of **36 financing mechanisms** (4) were identified, of which 2 institutions were identified that have an exclusive focus on the circular economy, these being the IDB Lab and the French Fund for the Global Environment. Thus, in addition to debt mechanisms such as loans (22%), risk reduction mechanisms such as guarantees (22%), and non-refundable funds (17%) were found. Although the predominant thematic axis in these financing sources continues to be climate change, other areas such as sustainable agriculture and supply chains are also addressed.

Regarding the requirements to access financing, it was identified that first-tier banks provide a certain level of detail on their respective websites; however, these requirements, which can also be requested in person from a banking agent, depend on the financial institution, focusing on documentary information about the company and, in very specific cases, even requesting quotes or estimated savings.

To learn more about the available financing mechanisms, you can consult the Directory of financing providers shown below, which lists the [main financing providers available](#) for the Dominican Republic.

Provider Directory

This project is conducted within the framework of the Caribe Circular program, with the objective of understanding the existing barriers and opportunities in terms of financing the circular economy for both banks and investors as well as companies in the Dominican Republic as part of the project products. In addition to this guide, a directory has been prepared that brings together financial institutions that have developed **financial services in favour of sustainability**.



Although the available financing mechanisms do not explicitly mention the circular economy, these can be used to finance circular initiatives. The following sections will detail the types of financial instruments and mechanisms applied in the Dominican Republic for different types of projects related to the circular economy, although these do not specifically mention the term.

5.2.1. Loans

Loans are defined as amounts of money that a financial institution grants to a client one time, who will have to repay the loan along with interest in periodic payments over an agreed period of time.

From the diagnosis conducted, it was identified that this financial instrument is the most common in the Dominican Republic, representing 39% of the total financial mechanisms available in the country. These loans are offered by banks mainly and with a focus on financing measures related to energy management, particularly renewable energy, which is why they present a moderate level of relationship with the circular economy. At the level of second-tier banking, loans are also one of the most used financing mechanisms (22%), being offered mainly by international banks and having a low to moderate level of relationship with the circular economy.

Some examples of loans for financing renewable energy that stand out are the green loans granted by the European Investment Bank and channelled through Banfondesa in the Banfondesa Renewable portfolio, the “Hazte Eco” portfolio of Banco Popular and the Financial Counterpart Fund for the Development of Entrepreneurship (CONFIE).

Given that loans are one of the most common financing mechanisms in the Dominican Republic, companies have a higher level of knowledge about this type of instrument, which is requested by both small and medium-sized companies as well as large ones, covering stages from an early growth to an advanced stage. However, the loans also present their own challenges, such as the lack of tools for the identification and evaluation of circular economy projects, a common denominator in the Dominican circular financing ecosystem.

Furthermore, although small and medium-sized business initiatives may also be eligible, in practice, they present a high level of risk, making loans an unattractive option due to the high rates, especially considering that the willingness to investing in circular economy initiatives is already low in this type of companies. In this sense, a greater potential is identified for the financing of capital investments (CAPEX) of large companies, such as in waste recovery plants or the acquisition of more efficient machinery.

5.2.2. Lines of credits

Lines of credit or credits are sums of money that a financial institution makes available to a client up to a pre-established maximum limit. The client can access the funds at any time and in the amount he needs, as long as he does not exceed the limit. Subsequently, the client must pay interest on the used balance.

With a share of 19%, **lines of credit are the second most widely offered financial instrument in the country**, being more common among banks. In this case, the materials approach is more diverse, however, the available credit lines continue to present a moderate level of relationship with the circular economy. On the other hand, credit lines represent 11% of second-tier banking instruments, being offered by both multilateral organizations and international banks.

Among the credit lines that stand out is the Green Financing program for the livestock sector of Banco Agrícola, which is intended for investment in technologies and good livestock practices, and the Rural Finance and Environment Program (FRA) of Banco Adopem, aimed at agricultural producers who develop good practices for the acquisition of capital goods. Likewise, institutions such as the French Development Agency (AFD), the Central American Bank for Economic Integration (CABEI) and the Inter-American Development Bank (IDB) have lines of credit.

Lines of credit are also quite common in the Dominican Republic and, given the nature of this mechanism, they can be used to finance operating expenses (OPEX), such as research and development of new circular products or obtaining company sustainability certifications. in early to advanced growth level. Compared to loans, lines of credit are typically more flexible, however, the risk associated with small and medium-sized businesses may result in higher interest rates or limit the amount of the line of credit.

5.2.3. Venture capital

Risk capital or venture capital is a form of financing provided to emerging companies with growth potential that are in early stages of development. Through this mechanism, financing is obtained in exchange for the investors' participation in the ownership of the company. It is worth mentioning that venture capital is not limited to the provision of financing but can include connections with other investors or business partners, and business development advice.

Venture capital is the third most common mechanism in the Dominican Republic (12%), identifying some focused on the management of forestry and agricultural ecosystems, as well as others without a defined theme, but with the potential to contribute to the development of circular business models, so it is considered a moderate level of relationship with the circular economy. In contrast, only two venture capital mechanisms were identified at the second-tier banking level (6%). Within the main capital funds, at the local level there were the cases of Alterna, and Venture.do, while at the international level the International Financial Corporation (IFC) has the Startup Catalyst.

This mechanism focuses on the financing of projects of companies in the seed or early growth stage with a strong innovation component, which is why their high potential to promote the development of circular business models is identified [32]. In this sense, finding a significant presence of venture capital sources is considered a good indicator, so incorporating a circularity approach would ensure an impact investment. However, given that the amounts invested are usually smaller compared to private capital, it is necessary to complement this mechanism with others that guarantee the sustained growth of the project.

5.2.4. Private Capital

It refers to funds provided by private investors, private equity firms and other financial institutions with the aim of investing in mature or expansion-stage companies in exchange for obtaining a stake in the company. Private equity investments can be significantly large and are often used to finance acquisitions, corporate restructuring, or expansion projects.

In first-tier banking, only one private equity investment fund was identified, this being Pioneer [34]. On the other hand, in second-tier banking, this type of mechanism is the third most common with 11%, having a presence similar to lines of credit, and being offered by institutions such as the International Financial Corporation (IFC), among others.

Given that private capital tends to invest in companies with a higher level of maturity, financing can be used for the development of new products or introducing changes in production processes [35]. Given that at the national level this type of financing is not very common, having a political framework that incorporates the circular economy in the productive sector and investments will allow greater private capital to be attracted [36].

5.2.5. Angels Investors

Angel investors are individuals who provide capital to early-stage startups in exchange for stakes in the company. The capital provided by angel investors differs from venture capital mainly due to the investment structure, since the latter usually comes from specialized firms.

One commonality is that angel investors not only provide financing, but can also offer valuable guidance, experience, and connections to entrepreneurs, leveraging their experience in the business world. This type of mechanism has a 5% participation at the local level, highlighting the platforms to connect with angel investors Carbon III and Enlaces. On the other hand, this mechanism is absent in second-tier banking.

By focusing on companies in the seed or early growth stage, this mechanism has high potential to promote the development of circular business models, however, as it is not a common source of financing in the Dominican Republic, developing a political framework could attract this type of investment, for which a circular economy approach should be incorporated, so that angel investors not only consider profitability variables, but also sustainability variables.

5.2.6. Non Refundable Funds

Grant funds are considered a form of financing in which the company obtains capital without the obligation to return it in the future. Examples of these types of mechanisms are grants from the government or organizations, cash prizes obtained in contests, and donations.

Non-refundable funds have a 9% participation at the local level, being provided by non-public institutions and aimed at companies in the seed or early growth stage. At the level of second-tier banking, this mechanism has a participation of 17%, being the **second most common mechanism among multilateral organizations and international banks**. Within this type of financing, the Impúlsate Program of Banco Popular and the Innovation Fund for Climate Resilience of the Global Innovation Fund (GIF) stand out, while at the international level the French Fund for the Global Environment (FFEM) has non-refundable funds allocated to projects that apply circularity solutions.

By not requiring reimbursement of the amount granted, this mechanism attracts the interest of small, medium, and large companies. Furthermore, the size of the company is not a relevant factor when accessing this type of financing, since each call presents its own selection criteria, which are usually aligned with the country's policies, objectives, and commitments. Particularly, non-refundable funds have a high potential for the development of circular business models and new technologies, as well as the development of national programs or projects that favour the development of the circular economy. However, it is also important to guarantee the follow-up and monitoring of the funded projects, so that they have a significant and sustained impact [31].

5.2.7. Blended Financing

Blended financing or hybrid financing is a strategy that involves the use of different sources of financing, such as venture capital investments, concessional loans, guarantees, subsidies, among other instruments, to cover the financial needs of a project, company, or initiative.

Blended financing is considered a structural approach, which involves a variety of models depending on the objective and financing instruments used. One of these models is **technical assistance grants**, which can be integrated within the financing mechanism or operate independently. These grants include advice for project development, operational assistance, product development, training, among other services, especially aimed at projects in early stages. This blended financing structure contributes to increasing the level of knowledge and improving the performance of companies receiving investment, benefiting them throughout the entire project cycle and promoting a better return on investment [37].

On the other hand, there are **market incentives**, also known as results-based financing, which seek to encourage investment in sectors important for development where regular market mechanisms are not sufficient. To do this, performance-based payment guarantees for products or services are used, providing investors with a clear idea of prices and income, and thus reducing the level of uncertainty in the development of new markets. [37].

Finally, **risk guarantees** consist of evaluating and assuming the risks associated with an investment or loan. These guarantees can improve the credit profile of companies to obtain greater capital or better conditions and provide peace of mind to investors about the return on their investment. To do this, guarantees, insurance policies, currency coverage or interest rate swaps are applied, which allows financiers to support a greater number of projects by not requiring an immediate capital outlay [37].

Blended financing represents 12% of the total circular financial products available in local banks, being the third most common mechanism and focusing on diverse themes and with a moderate to strong level of relationship with the circular economy. In the Dominican Republic, there is a predominance of blended financing that considers technical assistance, as is the case of the National Fund for the Environment and Natural Resources - MARENA Fund and the Public-Private Trust for the Comprehensive Management of Solid Waste (DO Sostenible), which may be due to the recognition of the need to develop the capacities of the actors to guarantee the success of the project and, in the future, the transition towards a circular model. On the other hand, blended financing mechanisms from multilateral organizations and international banks represent 11% of the total mechanisms, having a similar presence to mechanisms such as private capital and lines of credit, and have different levels of relationship with the circular economy.

Some examples of blended financing are the Public-Private Trust for the Comprehensive Management of Solid Waste (DO Sostenible, Figure 15), the Regional Centre for the Promotion of MSMEs (CENPROMYPE) of the Central American Integration System (SICA) and others provided by the European Union, through the European Investment Bank (EIB), and the International Finance Corporation (IFC).

This type of mechanism has a particular focus on impact projects, covering various sectors and initiatives in early or advanced development stages. Despite having a complex operation, it is considered a mechanism with high growth potential since there is a great availability of financing sources, such as multilateral organizations and international banks, which can be incorporated.

Figure 15. Combined financing: Do Sostenible Trust

Trust





About the trust:


The public-private Comprehensive Waste Management Trust "DO Sostenible" serves as an economic instrument to encourage the participation of various sectors in the problem of waste management in the Dominican Republic through the financing of remediation and rehabilitation projects, contaminated sites, as well as contributions to individuals or entities for collection centres and plants, landfills, valuation plants, co-processing, logistics chains, educational campaigns and other activities related to comprehensive waste management.




Guidelines

 **Remediation, sanitation, and environmental recovery**
Cleanup of open-air landfills and environmental recovery of the area

 **Governance and municipality**
Plans, programs and projects of town councils and municipalities

 **Sustainable infrastructures for solid waste management**
Development and implementation of treatment plants, valorisation or final disposal for the treatment and reuse of solid waste

 **Participation and citizen education**
Programs and projects aimed at training, awareness, and education of the main actors in solid waste management

 **Circular economy**
Implementation of a circular economy system in the country that includes plans to reduce the environmental impact through efficient product design and the management of returning waste to the hands of the manufacturer, also creating a market for them.



240
open-air
landfills by
2021



Currently, the trust's focus has been the closure of open-air landfills, as it is a priority for the country.

Source: Own elaboration based on Do Sostenible [38]

5.2.8. Guarantees

Financial commitment that one party offers to support a financial obligation assumed by another party. These obligations can be loans, credits, contracts, or other forms of debt, so the main objective is to provide additional security to lenders, reducing the perceived risk of default by the borrower, facilitating access to financing on better conditions.

In first-tier banking, this type of mechanism was not identified; however, like loans, guarantees are the first mechanism most offered in second-tier banking, with a 22% participation, where guarantees from the bank stand out. Development Bank of Latin America - CAF and the World Bank.

Although guarantees are not a direct financing mechanism, they offer protection against risks, promoting private investment in circular economy initiatives. This type of financing is flexible both in terms of the size of the company and the type of investment (capital or operational), and can be used for the acquisition of more efficient equipment and technologies, the construction of waste recovery plants, etc. However, it may imply additional financial costs that could increase the total financing costs for companies.

5.2.9. Impact Investment

Impact investing refers to investments that, in addition to obtaining profitability, seek to generate a positive social or environmental impact. This is a type of private sector investment that is generally part of a diverse portfolio and can encompass different financing mechanisms. In addition, it is considered a midpoint between philanthropy, which does not expect a return, and traditional investment, which is based exclusively on financial return without taking into account the impact of said investment. Thus, unlike a traditional investor, impact investors are more willing to sacrifice the rate of return in exchange for generating social and environmental benefits, their participation in blended financing structures being common and playing a key role in meeting the objectives. sustainable development goals [36].

This trend arises in response to global challenges that nonprofits organizations have been unable to address. Governments face increasingly complex social problems with limited budgets and the climate crisis has highlighted the urgency of integrating sustainability into production models, which has led the public sector to seek allies in the private sector and this, in turn, to redefine economic development. Within this group of actors, there are banks and fund managers, however, this type of financing can also come from multilateral organizations [39].

According to a report on Impact Investment in Latin America conducted by the Aspen Network of Development Entrepreneurs (ANDE), among the sectors of interest in the region are agriculture and food, education, and health, being similar to the global impact investing landscape. Furthermore, within green technology, the circular economy and material efficiency stand out as the first focus of investment.

Likewise, the study identifies that investments focused on companies in the seed and entrepreneurial phase, through capital instruments, loans and guarantees. To do this, impact investors depend on proprietary impact measurement tools [40].

An example of an initiative to promote impact investments is the Latin American Impact Investment Forum (FLII), conducted by the regional social innovation platform Alterna. This event takes place in Central America and the Caribbean and brings together investors, entrepreneurs, corporations, investment funds, organizations and other relevant actors in the investment ecosystem with the objective of stimulating action, strengthening ties and promoting investment in the business ecosystem on topics such as carbon credits, circular and regenerative economy, food systems, among others [41].

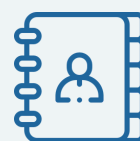
5.2.10. Technical Assistance

Promoting the transition towards the circular economy requires strategies for the development of capabilities, both from banks, in the evaluation and recognition of circular economy projects, and from companies, for the planning and execution of circular projects. For this reason, training and technical assistance are considered a complementary mechanism to the aforementioned financial instruments.

Based on the diagnosis conducted, 11 technical assistance programs were identified for companies and ventures related to sustainable finance, provided by local banks, capital funds and the government itself. Among them, among which the Impulsa Popular program of Banco Popular, INTEC-Emprende of the Entrepreneurship and Innovation Centre of the Technological Institute of Santo Domingo (CEI-INTEC) and Mi Tierra E' RD of Venture.do stand out. Regarding training in sustainable finance for banks, 12 programs were found, provided by both international banks and multilateral organizations, highlighting the Green Financing Program in Latin America and the Caribbean of the Inter-American Development Bank (IDB). As mentioned above, these programs can be seen in detail in the directory prepared within the framework of this project.

Provider Directory

This project is conducted within the framework of the Caribe Circular program, with the objective of understanding the existing barriers and opportunities in terms of financing the circular economy for both banks and investors as well as companies in the Dominican Republic as part of the project products. In addition to this guide, a directory has been prepared that brings together financial institutions that have developed **financial services in favour of sustainability**.



5.3. Tools for financing the circular economy

In addition to the financing and capacity development mechanisms available, below are some tools that can enhance the development of a financing ecosystem that is more oriented and focused on the circular economy, ensuring the typology of eligible projects, and providing a mechanism clear to finance these projects.

The Green Taxonomy provides a clear and standardized framework that allows identifying, classifying, and promoting economic and financial activities that contribute to clear environmental objectives. On the other hand, the Green Bond Guide provides a structured and standardized framework for the issuance, evaluation, and monitoring of green bonds, ensuring that the funds raised are allocated to environmentally sustainable projects.

5.3.1. Green Taxonomy

The Superintendency of the Securities Market of the Dominican Republic (SIMV, by its acronym in Spanish), with the support of the International Finance Corporation (IFC) and the Ministry of Environment and Natural Resources (MMARN, by its acronym in Spanish), began the process of developing a green taxonomy in order to promote green financing and the growth of the green capital market in the country.

The Green Taxonomy defines clear and objective criteria to classify economic activities as sustainable. This helps companies identify which practices and projects can be considered part of the circular economy. For financiers, it provides a framework to assess the sustainability of potential investments, ensuring that their funds are allocated to projects that truly contribute to the circular economy.

According to the draft green taxonomy presented in public consultation, it is a classification tool that will help investors and companies make informed investment decisions on environmentally friendly economic activities, ensuring consistency with international standards and taxonomies and aligning the private sector with national objectives and international commitments towards climate change mitigation.

It has a structure of 11 documents, of which 7 of them focus on the **sectors selected as priorities**: Energy, Transportation, Construction, Information and Communication Technologies (ICT), Industry, Water and Waste; all of them with **defined activities** aligned with the **general environmental objectives** of the taxonomy, ensuring that no activity harms other objectives, which are: Mitigation to climate change, Adaptation to climate change, Conservation of ecosystems and biodiversity, Water management, Economy circular, Pollution prevention and control. In that sense, water management considers aspects such as ecosystems and biodiversity linked to water, hydraulic infrastructure and efficient drinking water and sanitation systems, being the **first taxonomy in America that addresses blue issues**.

Each objective is related to the sectors through a way of contribution. The objective of the Circular Economy contributes to the sectors through the perspective of “Doing no significant harm”, facilitating the process of identification and categorization of projects by excluding those economic activities, or their projects, which can generate significant harm under a circular. Figure 16 shows the conditions of economic activity that can generate damage according to the objective of Circular Economy.

Figure 16. Activities excluded for the Circular Economy objective of the Green Taxonomy

Conditions in which damage can be generated for the objective of circular economy, waste prevention and recycling

The economic activity:

- ☐ Leads to significant inefficiencies in the use of materials and the direct or indirect use of natural resources. For example: non-renewable energy, raw materials, water, and land) in one or more stages of their life cycle
- ☐ Generates inefficiencies in terms of durability, repairability, updating, reuse or recyclability of products
- ☐ Leads to a significant increase in the generation, incineration, or disposal of waste with the exception of the incineration of non-recyclable hazardous waste; also when long-term waste disposal can cause significant damage to the environment

Source: Own elaboration

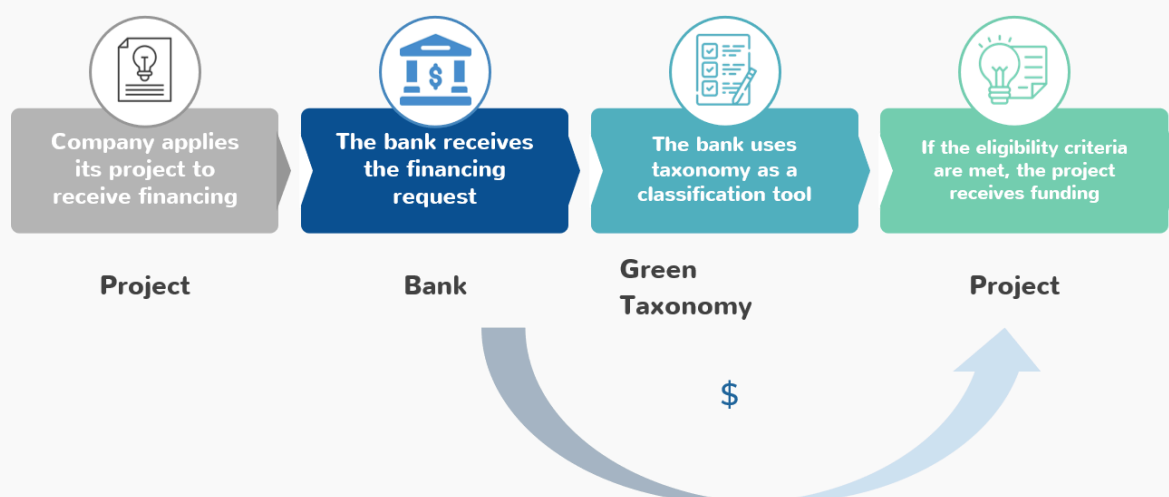
The green taxonomy is expected to be implemented in capital mobilization processes, covering applications, instruments, and users such as [42]:

- Applications: debt issuance, financing, project development, basis for the development of public policies, channelling green investments, etc.
- Instruments: Bonds, credits, asset-backed securities, subsidies and incentives, investment funds, etc.
- Users: financial institutions, real sector, project developers, thematic bond issuers, policymakers, investors and asset managers, and national and local governments.

Furthermore, this will be aligned with the environmental priorities established by the authorities of the Dominican Republic both in national policies and guidelines, such as the National Climate Change Plan, and in international treaties, such as the Nationally Determined Contributions, a commitment made under the Paris Agreement 2015 [43].

After having gone through a public consultation process, the final document is currently in the review stage. After the completion of the public consultation process, the taxonomy development process will continue with the preparation of equivalence tables with the ISIC, the National Greenhouse Gas Measurement, Reporting and Verification System and the methodology to develop the taxonomy green, resources that will be of great importance for Dominican banking entities since they will allow them to associate the terminology commonly used in their sector with the taxonomy. This initiative is aligned with other government initiatives such as the “Green Bond Guide” and “Green Finance Segment,” allowing for a common and official language for the public and private sectors that facilitates the identification and financing of projects that contribute to sustainability[44].

Figure 17. Application of the green taxonomy in the financing of circular initiatives



Source: Own elaboration

5.3.2. Green bond guide

Green bonds are instruments through which companies or individual investors can finance sustainable projects. The issuance of green bonds can expand the base of clients and investors, reducing the cost of financing, however, a higher level of transparency and more detailed accountability is required.

In the Dominican Republic, green bonds are regulated in the Securities Market Law No. 249-17 and the Law for the Promotion of Renewable Energies and Special Regimes No. 57-07, in addition to there being a series of policies and measures to promote sustainable investments such as the Income Tax (ISR) exemption for interest paid on green bonds issued by companies and government institutions and an incentive program focused on renewable energies [45].

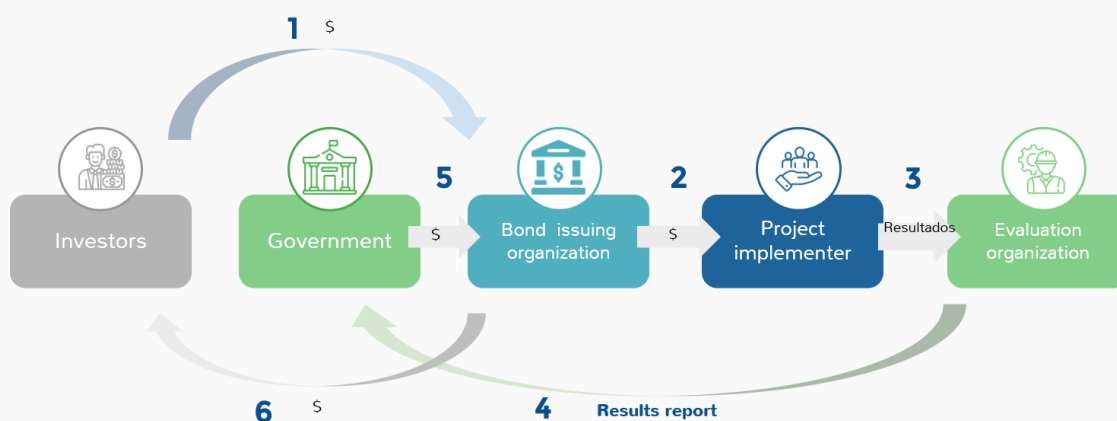
Within the framework of the Public-Private Trust for Comprehensive Waste Management, the Stock Exchange and Stock Markets of the Dominican Republic (BVRD, by its acronym in Spanish) in collaboration with MexiCO2 prepared the Green Bond Guide, which presents an introduction to this type of financing, the requirements for the issuance and registration of green bonds and the types of acceptable projects [46]. Among the projects with the potential to be financed by green bonds are the following:

- Renewable energy
- Sustainable Construction
- Energy Efficiency
- Clean Transportation
- Water / Adaptation
- Waste Management / Methane Capture
- Agriculture / Bioenergy / Forestry / Food Supply Chain

Similar to the green taxonomy, this guide provides a specific framework and criteria for the issuance of green bonds, helping companies recognize what types of projects are eligible for this financing and, thus, develop or strengthen their sustainability strategy. This will allow them to finance their initiatives and improve their business image, building solid relationships with investors, clients, and other actors. On the other hand, having a more transparent and accessible framework can attract new investors, increasing demand for bonds and reducing financing costs for circular economy initiatives.

The following figure illustrates the bond issuance process, which begins with the purchase of bonds by the investor, with the organization issuing these bonds being in charge of disbursing the invested funds to the project implementer. Once the project is implemented, the results generated are reviewed by an evaluation organization, which verifies compliance with the objectives before the government. Finally, the latter compensates the bond-issuing organization, who returns the money to the investor. [47].

Figure 18. Issuance of bonds to finance circular initiatives



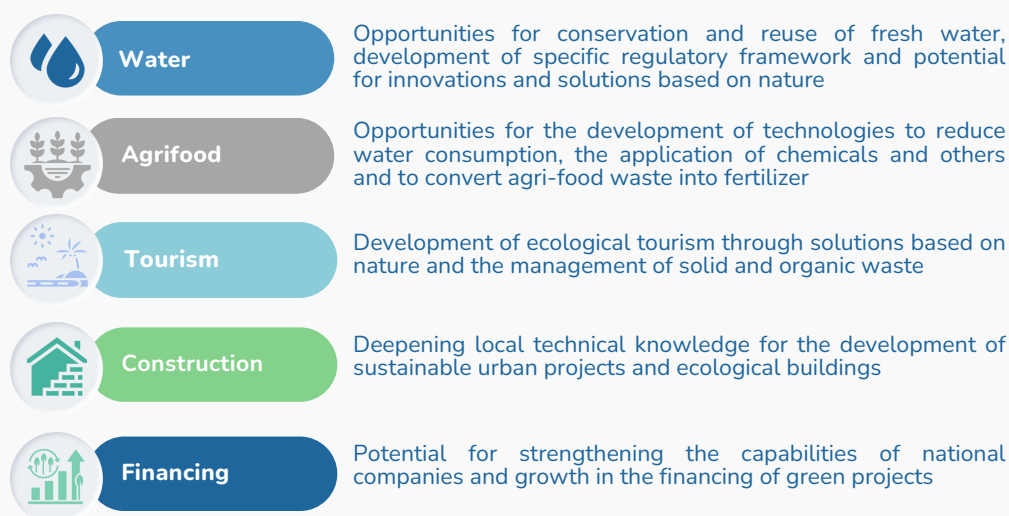
Source: Own elaboration based on GIZ

5.4. Investment opportunities in the Circular Economy

To identify investment opportunities in circular economy initiatives in the economic sectors of the Dominican Republic, the relevance of two aspects is considered. On the one hand, it is important to know the level of progress in the circular economy, reflected in the number of public and private initiatives, regulatory framework, coordination and promotion, research and academic groups, business models, banking, and multi-actor initiatives. On the other hand, the availability of financing mechanisms aimed at the sector must be taken into account, these may be loans, lines of credit, risk capital, angel investors, non-refundable funds, blended financing and guarantees.

The Circular Economy report in the Dominican Republic, prepared by the Ministry of Foreign Affairs of the Netherlands [48], provides an in-depth analysis of investment possibilities and implementation strategies in various sectors of the country. They mention that the Dominican Republic has the potential to capitalize on the economic and environmental advantages of the waste industry, especially those coming from the manufacturing, tourism, and construction sectors, indicating that in the short term the demand for intermediaries that close the cycle will be enhanced between waste and new products. These identified emerging opportunities are summarized in the figure below.

Figure 19. Summary of emerging circular economy opportunities



Source: Own elaboration based on Ministry of Foreign Affairs of the Netherlands

The evaluation of the circular economy and analysis of available financing mechanisms conducted allowed us to identify the prioritized sectors (Manufacturing, Tourism and Construction) that have a greater potential for investment in circular economy projects or initiatives. In Table 1, it can see some examples of initiatives by sector and by category of the Circular Value Hill.

It is worth mentioning that this opportunity analysis considers projects and instruments specifically aimed at the sector and although a superior positioning is a good indicator of progress in the circular economy, a low level also represents an opportunity for the intervention of other actors, such as the government, to enhance the circularity of said sector.

Figure 20. Investment potential in prioritized sectors for circular economy initiatives



Source: Own elaboration

Based on the analysis of opportunities, it is identified that the **agri-food** industry has greater potential for investment in circular economy initiatives, since it has experience in this type of projects and various mechanisms for financing them, both in first-tier banking like second floor. This financing has focused on the agricultural production stage, in order to promote good practices from the beginning of the value chain through instruments such as lines of credit, venture capital and blended financing at the national level, and lines of credit and funds non-refundable provided by international entities. An example of a financing initiative is the ecocredits from Banco Adopem, which were offered in Barranca and Jarabacoa (La Vega province), Salcedo (Hermanas Mirabal), San Juan and Azua, benefiting 391 producers with an average financing of US\$905.5 and a total amount placed of US\$354,000 in the pilot stage. Regarding circular economy initiatives, renewable energy generation projects were identified, as well as initiatives for the sustainability of containers and packaging. In line with this, there is a potential for using agricultural waste in biodigester systems and industry byproducts in other production chains.

Furthermore, the importance of the **tourism** sector in the country is recognized, which has begun to adopt a sustainable approach, being the prioritized sector with the greatest number of projects; however, this level of progress in circularity is not reflected in the number of financing mechanisms available for the sector, where venture capital was found at the national level and loans from international banks. Among the initiatives identified, there are events to promote sustainable tourism, as well as independent hotel initiatives such as the use of renewable energy, energy efficiency, eco-design, biodiversity conservation, and waste minimization and management, which shows a diversity of actions and growing interest in the sustainability of the sector, so it is expected that banking and government actors will eventually direct their efforts towards this end.

These are followed by sectors such as **plastics and construction**. In the case of the latter, mechanisms such as loans, private capital and blended financing were found in the Dominican Republic, such as the Public-Private Trust for the Comprehensive Management of Solid Waste (DO Sostenible), which has the objective of building infrastructure for waste management. Likewise, although the number of initiatives found is limited, the development of a roadmap to achieve low-carbon cement production and the construction of homes from recycled plastic stands out. In addition, eco-design and resilient construction projects can be promoted, as well as the incorporation of energy efficiency and renewable energy technologies, the adoption of standards such as LEED.

For the plastics sector, a more limited level of financing was identified, evidencing an absence of specific financing for this sector in the interior of the country. However, initiatives related to the recovery and recycling of plastic were found, with a focus on containers and packaging, which could be complemented with ecodesign initiatives and the use of alternative materials.

On the other hand, sectors such as **textiles and paper** present a lower level of progress in the circular economy, identifying that none of them had specific financing mechanisms for the sector. For its part, the textile industry has initiatives such as the upcycling of fabrics and the manufacture of garments from recycled plastic, which could be complemented with measures to improve the management of textile waste in the industry, the promotion of second-hand markets and for rent.

In the case of the paper industry, initiatives were found such as recycling it for the production of shoe lasts, cup holders and egg crates, which could enhance the sustainability of the sector by promoting the certification of its products and research into their use. biomass as raw material. Therefore, it is necessary to increase the level of knowledge for the development of new projects that can subsequently seek financing.

Table 1. Circular Economy Initiatives in the Dominican Republic

Circular Value Hill	Manufacture	Tourism	Construction
Up-Hill	<p>Green Depot: manufactured the first biodegradable disposable packaging in the Dominican Republic and the Caribbean, using palm yagua as raw material and integrating communities into the sustainable development model. Currently, its portfolio has about 12 varieties of products, including disposable plates, trays, and spoons, 100% natural and biodegradable.</p>	<p>Tropicalia: Sustainable luxury resort located on the Costa Esmeralda beach in Miches that fuses intelligent design with the natural landscape. Thus, the search for sustainability is the starting point of all aspects of design, construction, and operation of the project.</p>	<p>Grupo Estrella, Lexco, Hageco y Epsa-Labco: The group seeks to promote the massive use of the Building Information Modeling (BIM) system, which allows the design, construction, and operation of infrastructure projects, improving efficiency throughout their life cycle.</p>
Top-Hill	<p>Cervecería Nacional Dominicana S.A.: By 2025, 100% of beer products will be sold in returnable packaging or made with mostly recycled content. This, through Glass Bottle Returnability, the Local Glass Bottle Factory and NUVI PET: Largest Alliance for the Collection and Recycling of Plastic Bottles.</p>	<p>InterContinental Hotels Group: Its hotels use the IHG Green Engage system, an innovative online environmental sustainability system that provides tools to measure and manage their impact on the environment by reducing water consumption, energy, and waste generation.</p>	<p>Asociación de Industrias de la República Dominicana: Developed the "Innovation and Remanufacturing Program in the Plastic and Construction Sectors" that proposes an intervention model for behavioural change in a group of companies around the reduction and use of waste generated in the transformation processes and postconsumer. Among its components, a route map, the development of pilot projects, a bag for the exchange of materials and dissemination actions are considered.</p>
Down-Hill	<p>NUVI: It is the largest private alliance that seeks to create a culture of reduction, reuse, recycling, and use of waste. Within this framework, different collection points for plastic bottles have been installed with the aim of guarantee its recycling. In addition, they have developed a platform for the exchange of waste, promoting the circular economy in the industry.</p>	<p>Grupo Puntacana: It has the "Zero Discharge" program, which aims to minimize the generation of waste through changes in the purchasing, classification and recycling processes, composting and production of renewable energy. Thanks to this, 100% of the waste generated on the Puntacana property is taken to its Recycling and Incineration Centre, where it is valued.</p>	<p>Residenciales Internacionales: It has an initiative to build homes with recycled plastic, which manages to reduce raw material costs and valorise waste from Cibao landfills. Thus, 26 homes were built in three communities in the Espaillat province.</p>
Cross-Hill	<p>Asociación de Industrias de la República Dominicana: Within the framework of the "Innovation and Remanufacturing Program for the Plastic and Construction Sectors", the Road Map for Plastic Packaging Waste has been developed, which considers among its axes the creation of an effective post-consumer economy, the fight against littering and ecodesign.</p>	<p>Green Fins Hub: It is the first online platform of its kind, which aims to help dive centre managers understand what specific activities they are currently carrying out may be causing damage to the marine environment, as well as provide solutions. suitable to address them.</p>	<p>Asociación Dominicana de Productores de Cemento Portland (ADOCCEM): It has developed the "Cement roadmap towards a low-carbon economy" with the aim of reducing industry emissions by 33% by 2030. Thus, among its axes is the recovery of waste as energy to replace fossil fuels, reduction of clinker content in cement, energy efficiency, renewable energies, among others.</p>

Source: Own elaboration

6. Barriers and challenges for financing the Circular Economy in the Dominican Republic

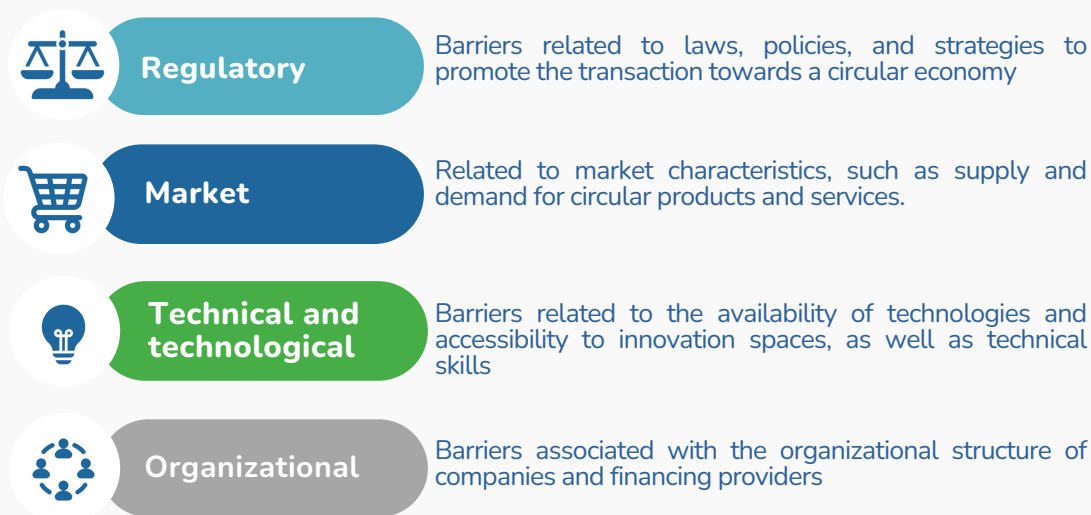
In the Dominican Republic, access to financing for circular economy projects faces challenges and barriers both for companies seeking financing for their initiatives and for financing providers seeking to invest in circular projects.

Circular financing requires a systemic multi-stakeholder approach, evaluation during the use and post-use phase of a product and the value generated in secondary markets. In other words, circular financing requires evaluating these other options for possible financial returns in which both companies and financing providers are involved.

This section compiles the barriers and challenges that companies and financing providers in the Dominican Republic present for the circular economy. Information was collected from 42 actors from the private sector, banking and government through worktables and interviews using guidelines of 7 to 10 questions each (See Section 2). The answers to these spaces are found in the Annexes section.

The barriers were grouped into 4 different categories and a distinction was made for those that affect only companies, only financing providers or both at the same time.

Figure 21. Categories of barriers to financing in the circular economy in the Dominican Republic



Source: Own elaboration

6.1. Barriers for the company

6.1.1. Regulatory barriers



Regarding this type of barriers, companies, mainly MYPIMES that seek to develop circular business models, highlight the bureaucracy in the administrative process during the process of formalizing their company, as well as the associated costs [C3.1; C3.5]. This fact makes it difficult to evaluate the risk and viability of projects, reducing the willingness of financing providers to provide any product from their portfolio to these companies, regardless of the type of financial instrument. [T3.1].

6.1.2. Market barriers



Within the market it is possible to differentiate the barriers according to business size. During the worktable spaces, the companies belonging to the MYPIME sector highlighted the lack of means of dissemination of the available financial mechanisms, both banking and non-banking, and in the case of those located in areas other than the capital city, They perceive that there are few bank offices in remote areas [A3.4].

Dissemination and awareness-raising about financial mechanisms to the target audience are considered by actors as a requirement to promote investments in circular economy within the country [C6.2.; M6.3; O6.1]. Regarding larger companies, the high costs of machinery and sustainable and/or circular raw materials, compared to conventional ones, stand out as a barrier. This requires the creation of fiscal, financial, or other incentives that favour the competitiveness of prices of machinery and sustainable material [A3.6; C3.2; M3.4].

6.1.3. Technical and technological barriers



Regarding technical and technological barriers, digitalization is a significant challenge, especially for small businesses. Both the lack of access to digital technologies and the inability to use them effectively can make it difficult to find funding and submit proposals [A3.3; C3.3]. Additionally, smaller companies, which may have limited access to and knowledge of these financing mechanisms, may represent an underserved segment by financiers [E6.1].

The lack of technical and technological capabilities for the implementation of circular projects is also observed, the first referring to the search, implementation, application and maintenance of new circular processes and the second to the technology available for the applicability of new materials, the availability of logistics for waste processing and for other processes with circular purposes such as resource reduction, repairs, recoveries, among others [A3.4; A3.5; R3].

6.1.4. Organizational barriers



Regarding the organizational structure of companies, there is an inherent difficulty in properly recognizing and evaluating circular projects due to the lack of clear and specific criteria to measure the impact and viability of these initiatives. The absence of specific indicators to verify compliance with sustainability further complicates this process, making it difficult to accurately evaluate the environmental, social, and economic performance of projects [E3.2; O6.1].

In addition, a need for training for staff on the principles and practices of the Circular Economy and sustainability in general is identified, taking into account that the lack of qualified personnel in the implementation of sustainable systems and processes also represents a significant obstacle that should be essential to provide employees with the tools and knowledge necessary to understand and apply concepts such as the circular economy and distinguish them from other approaches, such as Corporate Social Responsibility, taking as a premise that they can be complementary [O6.3; O6.4].

In parallel, proposal formulation processes can be extensive, especially when non-refundable funds are involved, which can represent an additional obstacle for companies facing time and resource constraints, and a lack of feedback on the reasons why. which proposals are not selected can generate confusion and frustration among companies.

6.2. Barriers for financing providers

6.2.1. Regulatory barriers



Financing providers perceive the need for a regulatory framework for the financing of the Circular Economy that encourages financial institutions to generate thematic financial products, in a way that facilitates the incorporation of circularity criteria in financing. This could be related to the fact that local banks do not have regulation or risk policies that facilitate and make viable the allocation of resources in projects with circular processes in the agricultural sector, food and beverages and sectors such as tourism and construction, such as they are mentioned in the draft Roadmap for the Circular Economy in manufacturing in the Dominican Republic. Given this, financiers observe a possibility in the existing alliances between the State and Multilateral Agencies to deepen the financing of the circular economy from programs for the generation of financial products focused on circular projects and initiatives through local financial intermediaries, such as multiple banks, associations of savings and loans, among others [OM3; BI; BL].

6.2.2. Market barriers



During the interviews and worktables, the financial institutions contacted mentioned that so far they do not perceive the demand from their clients for financial mechanisms for projects related to the circular economy, which is why, commercially, they do not see it appropriate to offer financial products for the circular economy. In other words, for the financial sector, there are still no favourable conditions in the market from the demand to develop and offer any product related to the circular economy in its portfolio [MA3].

On the other hand, financial entities also highlight the need for institutions or support organizations that provide as part of their services the evaluation or corroboration of circular indicators, or in the best of cases some type of certification that serves as evidence of the circular impact generated by the company [TU 3.2].

6.2.3. Technical and technological barriers



In terms of technology, an important challenge perceived by financing providers is their lack of knowledge about the concepts related to the circular economy that allow them to understand the processes, structures, and components of circular initiatives, whether these are projects or new circular business models. This may create uncertainty among financiers about the feasibility and impact of circular initiatives, which may decrease their willingness to provide funding [OT 3.1].

Additionally, it is perceived necessary to develop clear criteria focused on measuring the impact and performance of the sustainable projects to be financed, with the aim of reducing the financial risks and interest rates associated with the circularity of the production processes. This will allow them to evaluate and make informed decisions about resource allocation. There are success stories in the region regarding financing mechanisms offered by local banks that can be taken as references to be replicated in the Dominican Republic [BI3; OT3.2].

6.3. Transversal barriers

6.3.1. Regulatory barriers



In general, attendees highlight the need for comprehensive policies and strategies that establish the position and goals as a country with respect to the circular economy, since this framework would allow us to know those priority aspects that must be worked on towards the circular transition, such as the dissemination and development of initiatives, the integration of concepts in academia and the financial market. Currently, there is the application of the GIRS law as a base policy related to CE, its approach covers only solid waste, reducing the comprehensive visibility of circularity concepts. Applying a public policy at the national and/or local level that integrates the concepts of circularity may initiate a transition in the business and financial perception of the country's productive processes.

On the other hand, both types of actors mention that there is an urgent need for the entry into force of the Green Taxonomy, as a tool that facilitates the understanding and precise identification of Circular Economy projects eligible for financing.

6.3.2. Market barriers



At a comprehensive level, one of the main obstacles is the lack of focus on long-term prevention, which may limit financiers' interest in supporting circular initiatives. Instead of prioritizing the prevention of future problems, the predominant focus may be more focused on solving immediate problems, which may decrease the willingness of financiers to invest in CE projects that promote long-term sustainability.

6.3.3. Technical and technological barriers



In a transversal way, the concept of circular economy in the Dominican Republic is perceived in an initial state of understanding by those attending the tables. This reflects the opportunity to develop technical capabilities focused on the implementation of circular projects, mainly in this last type of actors.

6.3.4. Organizational barriers



Likewise, the lack of education and outreach about the benefits of the Circular Economy for both private companies and the government may limit financiers' interest in supporting circular projects. Furthermore, poor dissemination of CE projects and their benefits can limit the visibility of these initiatives and reduce financiers' interest in supporting them.

Finally, deepening public-private and multilateral alliances is essential to strengthen the Circular Economy ecosystem. Collaboration between different actors, including governments, companies, non-profit organizations, and international organizations, can generate synergies and facilitate the mobilization of resources and knowledge necessary to drive the transition towards a more sustainable and circular economic model.

Despite these barriers, the Circular Economy is emerging as an important issue in the Dominican Republic, particularly in solid waste management. Although there is no defined national vision, nascent development is observed in sectors such as manufacturing (plastics), construction and tourism, with roadmaps that outline strategies for CE. However, it faces the government's poor capacity and structure for the development of circular projects, which may hinder the effective implementation of initiatives in this field.

7. Strategy to improve financing for the Circular Economy in the Dominican Republic

The sections preceding this chapter allowed us to understand what the circular economy is and how it has been progressively implemented in the Dominican Republic, addressing the barriers and opportunities that arise after its adoption in the country. This analysis allows us to understand how financing can catapult the circular transition in the country through various financial mechanisms and use of tools at different scales of business development, through the interaction of actors from the private sector, government, and banking.

However, the financing of the circular economy in the Dominican Republic still presents barriers that prevent it from achieving its objective, that is, the use of money exclusively to finance, refinance, invest or fully or partially insure new and/or existing companies or projects that promote the circularity of the economy.

This section addresses three types of strategies: firstly, strategies for the development of projects or business models for companies, secondly, strategies for greater investment and financing for the circular economy from banking and finally, strategies at the level political and multi-actor that allow enabling the necessary conditions that favour the financial ecosystem for circularity in the Dominican Republic.

7.1. For companies

The following strategies are aimed at identifying suitable financing strategies to prepare suitable and bankable business plans, commercial strategies, and application documents for suitable financial services in the Circular Economy sector.

Companies, regardless of their level of development, which seek to incorporate the circular economy approach into their production lines or develop a new circular business model must mainly consider two stages: first, the identification and design of the circular proposal and, secondly, the search and application for financing opportunities. To identify and design the circular proposal, it is recommended to follow the following steps:

7.1.1. Understand circular economy

It is essential that both businessmen and entrepreneurs internalize the concept and objectives of the circular economy, as well as its application throughout the entire value chain, with the purpose of recognizing in their business processes the viability of integrating strategies related to this approach (See Section 2). For example, they could identify improvement opportunities that allow optimizing the use of resources in the production lines of already established companies. Likewise, they could develop circular business models, both for consolidated companies and for new ventures that aspire to incorporate the circular economy paradigm as an integral part of their value proposition.

7.1.2. Design your circular proposal

Currently there are various methodologies that companies or entrepreneurs can use to build a business model, a product or service, a project, etc. that includes the circular approach, satisfying needs and generating positive impacts.

The Circular Canvas tool allows you to diagnose the business model or project and design an alternative circular proposal without blurring the purpose of the company or venture through systemic thinking, considering not only the economic result but also the social and environmental impacts.

To use the tool, the businessman or entrepreneur must start from understanding the **purpose and need** that the process, product or service satisfies where circular strategies will be integrated, since the purpose is the guide of every organization. After this, **the key activities, competencies, and resources** for value creation must be identified, thus having a first look at the financial investment that must be made for the implementation of the circular proposal. It is important not to forget that projects or business models must be profitable and financially sustainable over time, especially once the project or model passes the piloting stage.

With clear activities and processes, the company must define the **value proposition** of its business model, that is, it must define what problems its offer solves, for whom it creates value, what type of value is created for interest groups and how it is the proposed experience, redesigning the experience of the user, the clients or contexts for whom value is created. This stage is similar to what a **market analysis** would be, since to answer the questions the company must identify the characteristics, trends and behavioural patterns of its target audience, competitors that address the same purpose so that conventional competitors can be differentiated.

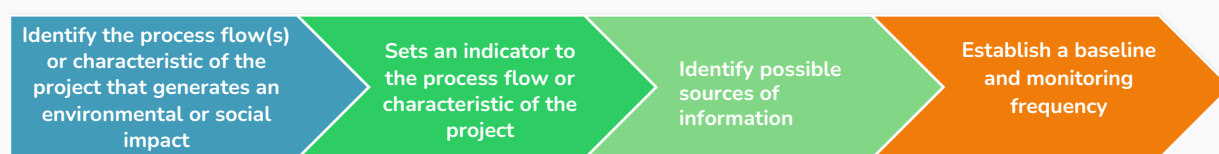
Finally, the company must evaluate the **next use of its product or service, as well as each of its components, considering whether it is possible to satisfy new needs at the end of the life cycle or the involvement of other actors to achieve the waste objective zero**. To do this, the company must establish strategies to make the value proposition known to the client or user, defining the type of relationship that will be created with the client and the user, the way in which the products or services will be delivered or made available and how the sale will be finalized. It is important that the company can take externalities into account to reduce negative impacts and favour positive ones.

7.1.3. Identify indicators

An indicator is a specific, observable, and measurable characteristic that can be used to show changes or progress in a project, in this case, towards achieving a specific result. It is important to identify not only the indicator, but also its unit of measurement and the source of information capture. Given the heterogeneity and breadth of circular economy projects, it is important to note that it is not possible to have a single or limited group of indicators that apply to all projects, both in the environmental and social dimensions.

Figure 22 offers some general steps that companies can follow to define indicators, considering that the indicator reflects the environmental or social impact around the circular economy generated by the project, is evident through available information sources and can be monitored at a specific frequency.

Figure 22. Steps for designing indicators



Source: Own elaboration

The following table shows a non-exhaustive list of indicators and possible sources of information for each category of the value chain.

Table 2. Examples of indicators and information sources for value chain categories

	Examples of indicators	Information sources
Group 1. Circular production and design	% of circular inputs (e.g. renewable sources) used in the production process: <i>Circular input mass / Total input mass</i>	Product Design - Purchasing Inventory
Group 2. Circular use	Number of single-use plastic bottles avoided by using the returnable bottle system <i>No. of single-use plastic bottles or tons of plastic avoided</i> Number of articles remanufactured and reintroduced to the market <i>No. of remanufactured items</i>	Beverage sales invoices Sales control
Group 3. Value Recovery	Amount of residual biomass converted into compost, which is reused as fertilizer in the production process <i>Mass of residual biomass or compost produced and used</i>	Waste mass record of the company that composted and used the fertilizer
Group 4. Circular support	Participation of companies in circular economy incubators in a region or value chain <i>No. or % of companies in a region, or in a value chain according to the incubator approach</i>	Impact evaluation of facilitating services

Source: Own elaboration

7.1.4. Diagnose your company and go for it

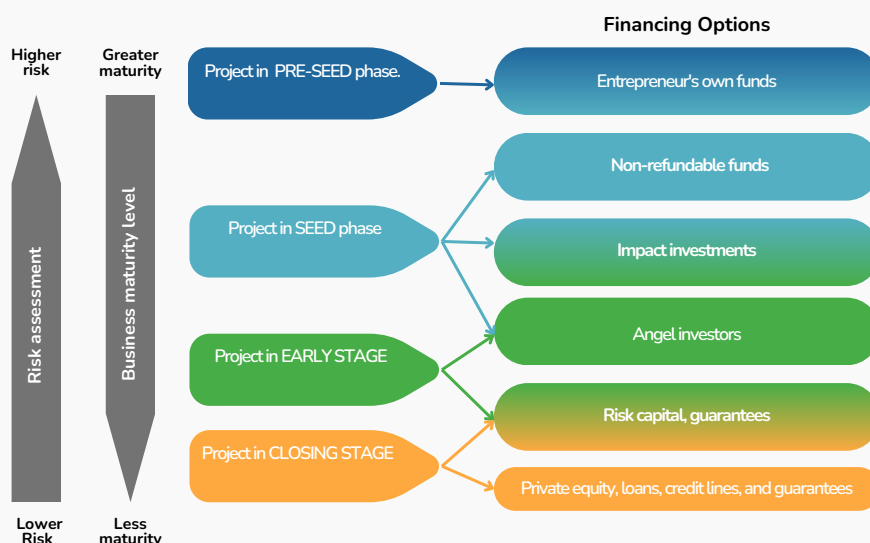
With the key processes, activities and resources and the indicators for monitoring the development of the project or circular business model, the company must define its financial needs and the impact in its favour that the financing of such needs would generate, that is, the company must define the purpose and applicability of the financing and then search for a financing mechanism according to the characteristics of the project or business model.

As mentioned in Section 5, financing providers and mechanisms can be of different types and, consequently, applicable to different stages of a company's development depending on the level of risk associated with each stage.

For financing through **banking mechanisms**, risk is conventionally measured according to 5 factors: payment capacity (level of compliance with the client's commitment on the agreed dates), character of the client (reputation, credit history, etc.), conditions (economic condition of the company and the impact on income generation), capital (depending on financial strength) and collateral (guarantees provided to cover performance); the conditions and character being essential elements of credit analysis. Financial institutions that offer this type of mechanisms usually accept average risks, as in the case of consolidated companies with products or services already positioned in the market that seek to expand or scale their sales.

For financing through **non-banking mechanisms**, such as grants, venture capital, non-refundable funds, etc. (See Section 5), it is considered a risk greater than that conventionally used by banks. The providers of these financial instruments have organizational guidelines and specific purposes. They measure the risk considering the alignment of the project or business model with the mission, vision and objective of the fund, the trajectory of the company, the sustainability of the proposal over time, the workload for acceptance, monitoring and closing of the financing and the impacts (positive and negative) generated. These mechanisms are ideal for early-stage companies or projects that offer a value proposition with a positive impact. The following figure relates the level of risk and possible financiers according to the maturity of the company.

Figure 23. Risks and types of financing depending on the maturity of the company.



Source: Own elaboration

Once the company selects potential financing providers, it must structure its proposal according to the requirements requested by the provider, relating its value proposition to the objectives of the financial mechanism. For banking mechanisms, each entity has specific and adaptable requirements according to its evaluation of the project or business model. For non-banking mechanisms, the company must adapt its value proposition to the objectives of the financial institution and its mechanism, for example, aligning it with the Sustainable Development Goals or the circular economy category in the value chain.

Technical sheets are a tool that could be useful when systematizing information related to the proposed business model or project, since it consolidates the most important aspects and facilitates the application for financing sources.

The following **flowchart** recapitulates and outlines the 4 strategies mentioned in Section 7.1. for circular economy companies that intend to apply for some type of financing in 5 steps. As Step 1, describe your circular project considering the objective of the project, level of development (for example, seed level or in the commercialization stage), the industry or sector in which the project is developed (for example, tourism, plastic – manufacturing , textile – manufacturing, etc.), the circular value proposition (use of renewable materials, useful life extension services, etc.) aligning it with the categories of the Circular Value Hill (See Section 3) and the location (country or region).

As Step 2, identify the environmental and social impacts generated by your project through the problems it addresses (for example, the reduction of solid waste generation due to the consumption of single-use plastics), as well as the circularity indicators (See Section 7.1.3) and Sustainable Development Goals, or others, that help ground the impact of the project or venture (See Section 3). As Step 3, know the audience to which your value proposition is directed and the characteristics of the market, identify your competitors, the size, and dynamics of the market where you will develop and the consumer trends, for example, a greater number of tourists choose products or services that generate a lower impact on the environment than conventional ones.

Step 4 is aligned with what is described in Section 7.1.4., since prior to seeking financing, the investment need required by the project or venture must be identified, whether for the purchase of machinery, technical assistance, technological equipment, etc., as well as the amount required and the financing mechanism to which it could apply.

Finally, Step 5 covers the search for financing according to the diagnosis and concluded in the previous steps, aligning the project profile with the financing profile. A tool to know the financing mechanisms available in the Dominican Republic is the directory cited in previous sections. The requirements and specifications vary between the financing mechanisms, however, the information collected in the previous steps will allow the financing applicant to adapt and adapt their financing needs to the applications.

Describe your project

Clearly define the information about your project:

- Project objective
- Development level
- Industry / sector of the organization
- Circular value proposition (product or service)
- Location (country or region)



01

Know the impact of your project

Identify the impacts generated by your project

- Problems that address
- Environmental and socioeconomic impacts
- Circularity indicators
- Others (for example: SDG related)



02

Know the market

Know the audience you will target, direct your value proposition and the market characteristics:

- Competitors
- Size and dynamics of the market
- Consumer trends
- Market opportunities and challenges



03

Define investment needs

Financing can be channelled for various purposes such as technical assistance, machinery, and equipment, etc.

- ☐ Define the objective and impact of the investment
- ☐ Estimate the amount required
- ☐ Evaluate different financing mechanisms



04

You can complete the information about your project in the following [fact sheet](#).

Look for financing

Look for a financing mechanism that suits the objective, impact, and investment need of your project. Remember that the impacts generated by your project must be aligned with the financing objectives



05

To know the financing mechanisms available for the Dominican Republic, consult the following [directory](#).

7.2. For financing providers

Section 5 offers an overview of the potential sectors **where** to invest in the circular economy in the country, considering the current development of circular initiatives developed and the financial experience based on the number of financial instruments applied in each of the identified sectors.

This section provides a series of strategies for financial service providers in the Dominican Republic on **how** to identify and land investment opportunities in the circular economy through practical actions, generating profitability and participating as a tractor for the circularity of value chains in the economic sectors of the country.

7.2.1. Understand circular economy

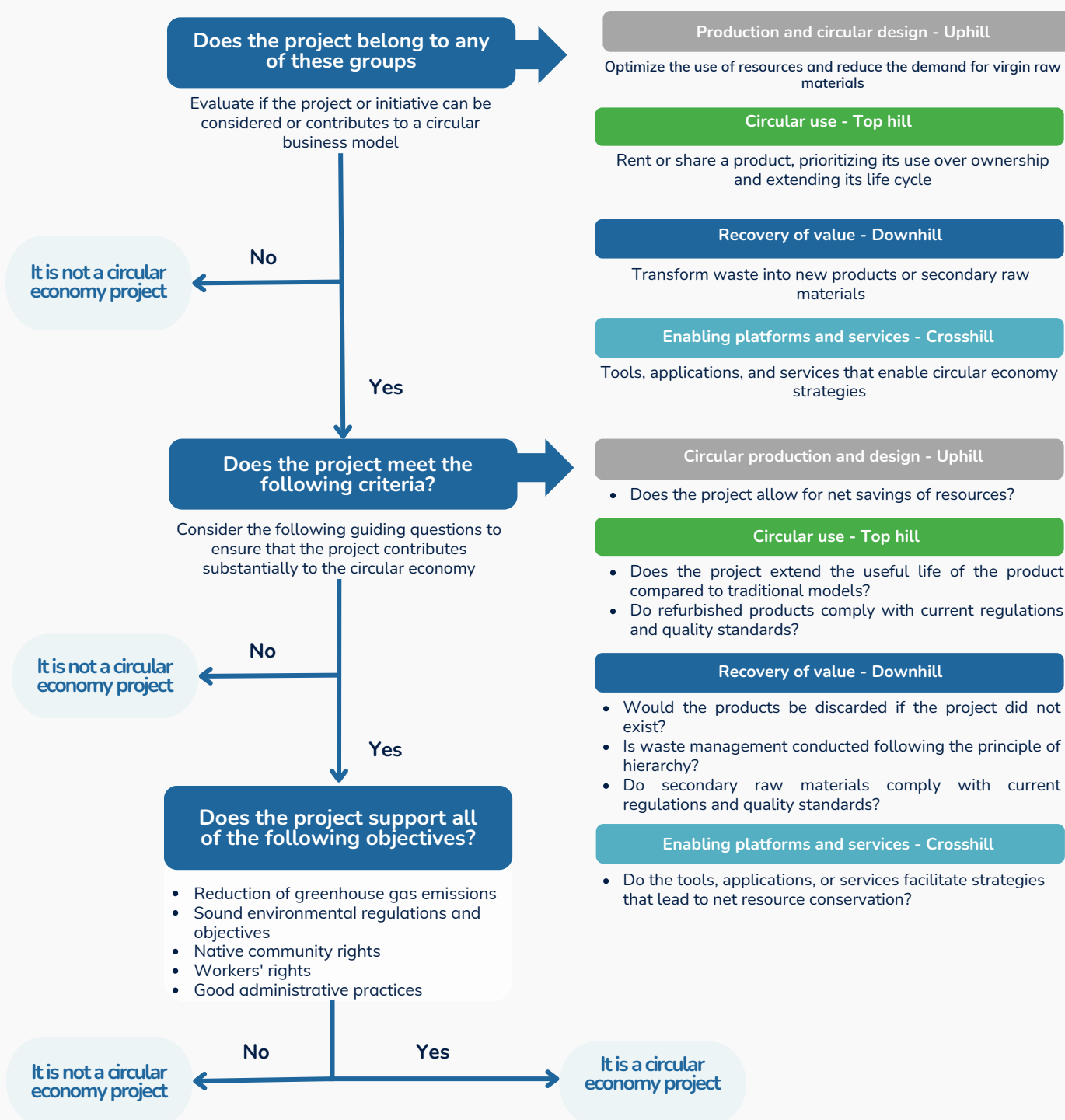
Companies and ventures have been developing circular projects or business models in economic sectors such as manufacturing, tourism, and construction (See Section 3) and will undoubtedly multiply in the rest of the sectors. This trend generates a new demand for the financing of this type of projects, such as at the time they were energy efficiency projects or renewable energy generation. Financing providers cannot be immune to this panorama and must be prepared to respond to this trend.

To respond to these changes, financing providers in the Dominican Republic must internalize the concepts and importance of the circular economy, knowing the economic, social, and environmental benefits of investing in circular projects or business models, as well as case studies and tools to evaluate circular projects. Along these lines, the application of the principles of the circular economy in financial institutions must not only cover their internal operations, such as eco-efficiency practices or the acquisition of purchases under sustainability criteria but must also be reflected in the investments made through its portfolio of financial products.

Knowledge of the subject and its application must be taken at all hierarchical levels of the financial institution's organizational chart, from the executive management who make decisions about the direction and strategy of the institution, to its credit officers and advisors who are the ones who evaluate the circular projects or business models that clients present.

The following decision diagram helps financing providers identify a circular project or business model, considering the categories established by the European Union (See Section 2). On the other hand, the taxonomy provides guidelines to differentiate when it is not a circular project and consequently generates environmental damage (See Section 5).

Figure 25. Process for evaluating the eligibility of a project for circular financing



Source: Own elaboration to the Guide to Financing Canada's Circular Economy ³

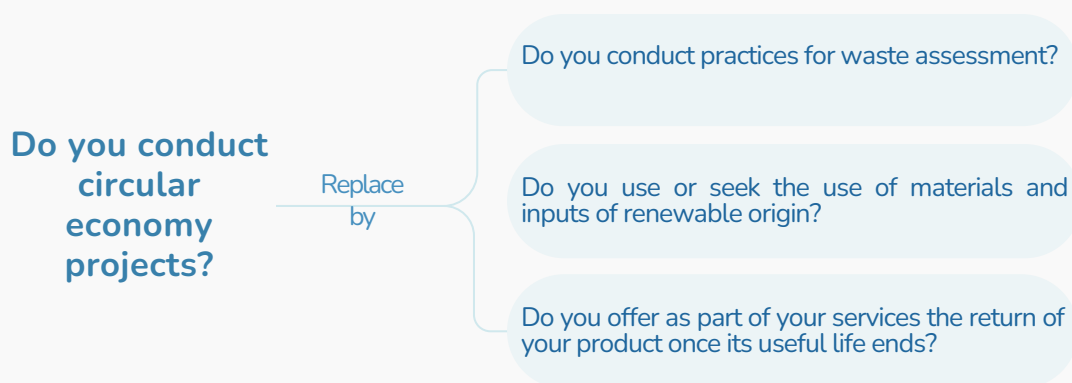
³ Financing the Circular Economy: A GUIDANCE DOCUMENT FOR CANADIAN FINANCIAL INSTITUTIONS. Link: <https://www.circulareconomyleaders.ca/wp-content/uploads/2024/02/Financing-the-Circular-Economy.pdf>

7.2.2. Know the opportunities with your clients

One of the barriers mentioned by financial institutions for financing the circular economy is the perception of a low demand for financial products for financing circular initiatives, so without demand it is not feasible for them to offer any exclusive product on the subject. However, it may happen that this perception is generated by lack of knowledge of the types of circular projects, both from suppliers and from companies. Although the Guide shows the types of circular economy projects and business models conducted in the country, providing an overview of the demand for financing for this type of projects, it is essential to know the specific needs of the clients or target audience of financial institutions. This is crucial to develop attractive financial products suitable for the implementation of circular business models or projects.

The strategy for identifying needs regarding the circular economy must consider the use of language that is understandable between both parties, recommending not asking directly whether or not they conduct practices related to the circular economy but rather through concise and direct questions about the different activities related to the circular economy.

Figure 26. Questions for identifying needs



Source: Own elaboration

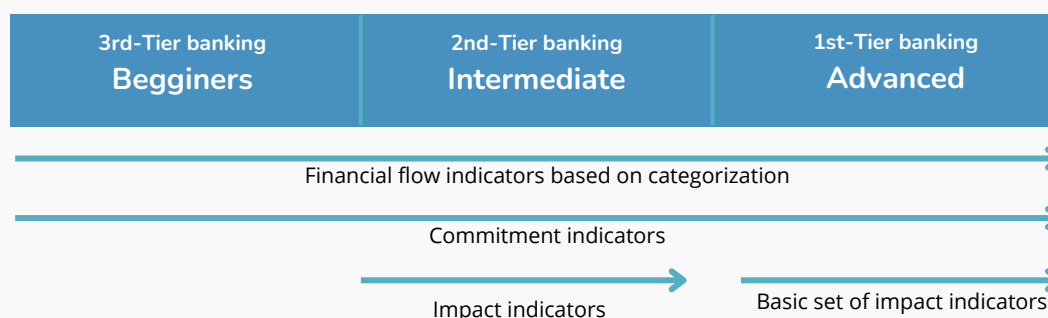
This identification can be done through surveys of your clients, where after collecting this valuable information, you can recommend strategies and steps to increase the circularity of your clients.

It is important to incorporate capabilities that allow commercial and credit personnel to understand, guide and identify the circular economy credit opportunities presented by their clients.

7.2.3. Report the circular impact of your portfolio

In accordance with the Guide for banks in the circular economy of the Principles for Responsible Banking [49], The indicators implemented by financial institutions can increase their scope depending on the level of financial experience of the banks (beginners, intermediate and advanced), as shown in Figure 27.

Figure 27. Scope of indicators according to the banks' level of financial experience.



Source: Guide for banks in the circular economy of the Principles for Responsible Banking

Thus, a type of indicator applicable at all levels is the categories of circular projects, that is, whether the project to be financed is related to the circular economy or not. To do this, you can use the decision graph of strategy 5.2.1. This indicator will quantitatively reflect the proportion (%) of the portfolio evaluated according to the circular economy categorization system. Commitment indicators allow us to understand the level of progress of clients in terms of the circular economy, measuring the number or proportion of clients that have approved circularity approaches or have plans in place to transition towards circular business models and practices. resource efficiency.

Finally, impact indicators will depend on the type of impact that the financial institution prefers to capture from its client portfolio. Impact indicators can be general or specific to the sector. A combination of several impact indicators is often necessary to adequately and holistically capture the impact of a given client, project or activity, encompassing both environmental impact and social impact. To define these impact indicators, you can use local strategies and tools, such as the Circular Economy Strategy for the Dominican Republic and the Green Taxonomy. In any of the cases presented, the indicator should try to measure its contribution to the transition from a linear economy to a circular economy.

On the other hand, the indicator must have a unit of measurement and a measurement source. The heterogeneity of the projects can make it difficult to propose a model of indicators that coincides for all the types of projects that are presented according to the categorization system of the European Union (See Section 1), unlike projects related to climate change that can reflect its impact with respect to the number of CO2 equivalent emissions. For the definition of indicators, what is recommended in the section 7.1.3. can be taken as a reference.

7.3. For the circular economy ecosystem in the Dominican Republic

7.3.1. Strengthening the regulatory and political framework for the Circular Economy

At the national level, the implementation of actions that allow the strengthening of the National Circular Economy Strategy for the Dominican Republic, which defines short, medium, and long-term milestones for the prioritized sectors, which can be taken as a reference for companies and institutions. financial institutions in the development of their own strategies and transition plans towards the circularity of their operations.

On the other hand, the development of public policy resolutions in the regions that promote and foster the circular economy as a key approach to address various environmental problems, such as plastic pollution and the loss and damage of ecosystems. For example, starting in the pilot areas of the Circular Caribbean program, so that the progress made in favour of the circular economy can continue process after electoral process.

A successful case in the region is Chile, who has a Circular Roadmap to 2040, with strategic axes for circular transformation and short and medium-term goals set with measurable indicators. On the other hand, they also have diagnoses of circularity and potential opportunities for different regions of the country. On the other hand, it has Law 20.920 as the main instrument of Extended Producer Responsibility in which producers of priority products are responsible for the organization and financing of the management of waste derived from the marketing of their products in the country. The law establishes priority products (tires, containers and packaging, lubricating oils, electrical and electronic devices, and batteries) for which goals and obligations must be established.

7.3.2. Generation of collaborative spaces

Collaborative spaces allow companies and financing providers to share experiences, knowledge, and best practices on circular economy projects. This exchange can help identify successful business models, innovative technologies, and effective financing strategies, facilitating the adoption of circular practices in other contexts and sectors.

With the participation of diverse actors, such as companies, financing providers, academia, government and civil society, collaborative environments foster innovation by bringing together diverse actors with different perspectives and knowledge. Interdisciplinary collaboration can generate new ideas and innovative solutions to the challenges of the circular economy at the country level and by each sector, thus attracting the attention and financing of investors interested in supporting pioneering and disruptive projects. The creation of collaborative spaces generates various benefits:

- It facilitates the creation of networks and strategic alliances between different actors in the circular economy ecosystem. Companies can connect with investors, financial institutions, and sustainability experts, which can result in new financing and collaboration opportunities for circular projects.
- They can function as platforms for disseminating information about funding opportunities, government support programs, and technical resources. This allows companies to access the information necessary to develop robust financing proposals aligned with the expectations of financiers.
- It can influence the creation of public policies and regulatory frameworks that support the financing of the circular economy. Collaboration can result in concrete recommendations to improve the regulatory environment and create incentives that facilitate access to financing.

These collaborative spaces can be developed by different actors in the ecosystem, who must set clear objectives in a way that ensures obtaining significant results for the ecosystem. Thus, collaborative spaces can emerge between different actors at a local, sectoral level and also considering international agreements, either with multilateral organizations or technology companies, such as the conference held by the AHK “German Green Tech” where different German companies exhibited technologies that provide concrete and affordable solutions for the treatment of organic waste, plastics and sargassum.

7.3.3. Linking actors

As a result of the generation of collaborative spaces, the creation of strategic alliances between actors in the circular ecosystem is generated, where companies can connect with investors, financial institutions, and sustainability experts, which can result in new financing and collaboration opportunities for circular projects.

Collaborative spaces can serve as digital platforms for disseminating information about funding opportunities, government support programs, and technical resources. This allows companies to access the information necessary to develop robust financing proposals aligned with the expectations of financiers. Collaborative environments can include business incubators and accelerators that focus on circular economy projects. These programs provide comprehensive support, from ideation to implementation, helping entrepreneurs develop their projects and connect with potential financiers. For example, the DEFINITE initiative – CCRI⁶ brings together high-impact circularity projects and funding institutions to drive the circular economy transition in Europe. The project provides project development assistance and guidance to circular economy project developers to increase the likelihood of success in attracting investors.

At the regional level, the Territorio Circular⁷ initiative in Chile, promoted by CORFO and the Ministry of the Environment, implemented by SOFOFA Hub, where, through public-private articulation, the enabling conditions are generated that contribute to the implementation of the Chilean Circular Economy Roadmap. Initiatives like these can be replicated in the Dominican Republic or in the Caribbean region, having as objectives:

- Train companies to mitigate the risk for the investment of innovative circularity projects for greater investment viability.
- Give greater visibility for financing to companies that are developing ideas and circular business models in the country or region.
- Close gaps between circular economy projects and financing providers.

⁵ <https://zakk.ahk.de/es/republica-dominicana/eventos/detalles-del-evento/german-green-tech-conferencia-santo-domingo2022>

⁶ <https://definite-ccri.eu/about>

<https://territoriocircular.sofofahub.cl/>

Conclusions and recommendations

In the Dominican Republic, notable progress has been observed in the adoption of circular practices, mainly in the private sphere and in the final stages of the product life cycle, as defined in “Group 3. Value recovery” of the model by Circular Value Hill. This trend is attributed to the great problem of waste generation in the country, which has led to the regulatory framework and policies prioritizing waste management. However, these reactive measures must be complemented with preventive measures focused on not generating waste by promoting circular projects in the design, production and use phases of the product life cycle.

Regarding financial instruments aimed at the circular economy, it has been identified that 40% of green financing mechanisms at the national level are dedicated to loans for renewable energies. At the regional and international level, this percentage is reduced to 23%, also focusing on climate change mitigation, sustainable agriculture, and sustainable supply chains. Despite the notable potential of the circular economy in the country, the integration of circularity criteria into existing financial mechanisms has been limited. The majority of the 42 financing mechanisms detected are indirectly aligned with the principles of the circular economy, indicating a need to promote greater support for projects directly related to the circular economy.

Local banks, which provide more than 50% of green financing mechanisms, have prioritized financial instruments in favour of renewable energies, leaving other aspects of the circular economy in the background. This underlines the importance of diversifying projects supported by local financing into broader areas of the circular economy. Diversification and education about the benefits of the circular economy for companies and banks are crucial steps to expand investment in sustainable projects, thus boosting the country's innovation and competitiveness.

The creation of tools and methodologies to evaluate the financial viability of circular projects is a priority. These tools will allow investors and financiers to better understand the return on investment, supporting informed decision making. Tools such as the Green Taxonomy allow companies to more easily align themselves with the expectations of investors and financiers. Additionally, the Guide offers a series of tools to favour the conditions of the actors for financing the circular economy in the Dominican Republic. The list of circular initiatives in the country, the directory of financiers for the circular economy, the step by step for applying circular projects to financing sources and the decision diagram for the identification of circular projects will facilitate companies and suppliers of financing the preparation of more consistent circular proposals and the identification of financing opportunities, respectively.

It is recommended that institutions such as the Superintendency of Banks, the Superintendence of the Securities Market, the Ministry of Industry, Commerce and MSMEs, and the Ministry of Economy, Planning and Development, together with actors from the private sector and academia, can make use of this guide and at the same time consider it as a starting point for the development of complementary tools to the specific conditions of each of their sectors and target audience.

The analysis suggests a potential for financing circular projects in the manufacturing sector, specifically the agri-food sector, and the tourism sector, although the latter does not yet reflect proportional access to available financing. In a transversal way, financial, capacity, and political support for initiatives in the waste sector must continue and be improved, promoting circular business models that provide support in the identification of recycling chains and development of the secondary material market, promoting closure safe disposal of landfills and fewer materials to landfills.

The Guide proposes a series of strategies for companies, financing providers and the entire ecosystem related to circular economy financing. Tools such as the Circular Canvas or the Eco Canvas can help strengthen circular projects and business models. The use of circular indicators will make the impact of circular projects and business models visible, while streamlining monitoring and verification by the financial institutions that finance⁵ them. Companies should gradually apply to the financing opportunities they identify, so that they gain experience and improve their proposals for each type of financing provider, thus increasing their chances of obtaining financing.

On the other hand, financing providers must consider circular economy strategies not only in their internal operations, but also in their project portfolio. This involves identifying clients who are already developing circular economy initiatives and understanding the challenges they face in implementing them. This will allow financing providers to evaluate their offer of circular projects and propose their first strategic alliances that can be integrated into their ESG sustainability strategies.

It is important that these strategies are accompanied by a regulatory and political framework that fosters the necessary conditions for the development of circular initiatives by companies, as well as the development of financial instruments for the circular economy. To achieve this, it is important that collaborative spaces be generated where the public and private sectors, banking, academia, and civil society participate and together develop strategies according to their needs. These spaces can serve as **digital platforms** for the dissemination of information about financing opportunities, government support programs and technical resources, for example, the European initiative DEFINITE – CCRI can be replicated in the Dominican Republic, which brings together companies, financing providers and experts who can help companies with their applications. The directory developed in this consultancy, together with this Guide and the mapping of CE initiatives in the country, are a first step towards the creation of a digital platform for the financing of the circular economy, which will allow bringing together companies, suppliers of financing and academia, who will train companies in the development of their business models and applications to investors. Another example of generating collaborations is the Circular Territory initiative, a program promoted by actors from the public and private sectors that seeks to monitor the progress of the implementation of the initiatives and actions of the Chilean roadmap and the fulfilment of the long term goals to be achieved.

Finally, some actions are recommended as next steps at the end of this consultancy for companies, financing providers and the public sector:

- Collaborate with companies to apply the tools identified and developed in the Guide, through training or training programs, considering the prioritized sectors and the level of business maturity. Collaborate with large companies that could apply for specific instruments, such as those proposed by organizations such as the IFC, with the objective of diagnosing their conditions for their application and strategies for applying and obtaining financing. Design and implementation plan of a first pilot of an exclusive financial product for the circular economy by a local financial institution, with the objective of identifying the best financing mechanism structure, the means of monitoring and verification, among other criteria, so that it can be a case that can be replicated by other local financing providers.

- Strengthening the Circular Economy Strategy of the Dominican Republic, by updating the first draft, considering a collaborative approach between actors and financing opportunities. This strategy must have guidelines and milestones in the short, medium, and long term that serve as a reference for companies, financing providers and other actors. Additionally, the development of sectoral strategies for the adoption and application of the circular economy approach in the main economic sectors of the country is recommended, addressing their main problems. This is so that tools, such as the Green Taxonomy or future Guides, can be used as tools for prioritizing activities related to the circular economy.

The transition towards a circular economy in the Dominican Republic requires effective collaboration between companies, financing providers and other key actors in the ecosystem. Implementing the strategies and tools proposed in this guide will allow companies to strengthen their circular business models, improve their access to financing and contribute significantly to the sustainability and resilience of the country.

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