Mobilizing Financing for the Circular Economy
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>6</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>7</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>8</td>
</tr>
<tr>
<td>Chapter 1</td>
<td></td>
</tr>
<tr>
<td>CIRCULAR ECONOMY FINANCE:</td>
<td></td>
</tr>
<tr>
<td>DEFINITION AND FRAMEWORKS</td>
<td>10</td>
</tr>
<tr>
<td>Introduction</td>
<td>10</td>
</tr>
<tr>
<td>Recent developments in the European Union</td>
<td>12</td>
</tr>
<tr>
<td>Chapter 2</td>
<td></td>
</tr>
<tr>
<td>FINANCIAL INSTRUMENTS SUPPORTING THE CIRCULAR ECONOMY: SELECTED EXAMPLES</td>
<td>15</td>
</tr>
<tr>
<td>Green bonds and transition/sustainable bonds</td>
<td>15</td>
</tr>
<tr>
<td>Sustainability-linked loans and sustainability-linked bonds</td>
<td>18</td>
</tr>
<tr>
<td>Impact investing by the private sector for the SDGs</td>
<td>19</td>
</tr>
<tr>
<td>Blended finance</td>
<td>20</td>
</tr>
<tr>
<td>Public-Private Partnerships</td>
<td>22</td>
</tr>
<tr>
<td>Chapter 3</td>
<td></td>
</tr>
<tr>
<td>AVAILABLE MULTILATERAL FINANCE PROGRAMMES FOR CIRCULARITY</td>
<td>24</td>
</tr>
<tr>
<td>Chapter 4</td>
<td></td>
</tr>
<tr>
<td>INCENTIVE STRUCTURES AND MEASUREMENT CHALLENGES</td>
<td>30</td>
</tr>
<tr>
<td>ESG investment strategies for financial institutions</td>
<td>30</td>
</tr>
<tr>
<td>Fiduciary duty in relation to the promotion of circular economy finance</td>
<td>31</td>
</tr>
<tr>
<td>Chapter 5</td>
<td></td>
</tr>
<tr>
<td>CREATING AN ENABLING POLICY ENVIRONMENT</td>
<td></td>
</tr>
<tr>
<td>FOR CIRCULAR ECONOMY FINANCE AND INVESTMENT</td>
<td>34</td>
</tr>
<tr>
<td>Actively guiding the circular economy transition</td>
<td>34</td>
</tr>
<tr>
<td>De-risking of circular economy finance through public policy</td>
<td>36</td>
</tr>
<tr>
<td>Incentivizing Investment in Public-Private Partnerships</td>
<td>38</td>
</tr>
<tr>
<td>Chapter 6</td>
<td></td>
</tr>
<tr>
<td>CONCLUSIONS AND RECOMMENDATIONS</td>
<td>39</td>
</tr>
<tr>
<td>Bibliography</td>
<td>42</td>
</tr>
<tr>
<td>Get in touch</td>
<td>48</td>
</tr>
</tbody>
</table>
Figures

Figure 1
Circularity strategies within the production chain, in order of priority

Figure 2
Sustainable finance instruments supporting circularity

Boxes

Box 1
Green bonds in UNECE member States

Box 2
Impact investing in Central Asia

Box 3
Blended-finance examples from UNECE member States

Box 4
UNECE PPPs for the SDGs approach

Box 5
Applying just transition principles to the circular economy transition

Tables

Table 1
Overview of selected multilateral finance programmes with circular economy elements
Abbreviations

ADB  Asian Development Bank
CERI  Circular Economy Regional Initiative
EBRD  European Bank for Reconstruction and Development
EIB  European Investment Bank
EPR  Extended Producer Responsibility
ESG  Environmental, Social and Governance
EU  European Union
GEF  Global Environment Facility
ILO  International Labour Organization
MSMEs  Micro, Small and Medium Enterprises
PPP  Public-Private Partnership
SDGs  Sustainable Development Goals
SLB  Sustainability-Linked Bond
SLL  Sustainability-Linked Loan
UNDP  United Nations Development Programme
UNECE  United Nations Economic Commission for Europe
UNEP  United Nations Environment Programme
WBIF  Western Balkans Investment Framework
Preface

A circular economy is an economy where the value of materials in the economy is maximised and maintained for as long as possible; the input of materials and their consumption is minimised; and the generation of waste is prevented and negative environmental impacts reduced throughout the life-cycle of materials.

The United Nations Environmental Assembly refers to a circular economy as a sustainable economic model, in which products and materials are designed in such a way that they can be reused, remanufactured, recycled or recovered and thus maintained in the economy for as long as possible, along with the resources of which they are made. A circular economy is one where the generation of waste, especially hazardous waste, is avoided or minimized, and greenhouse gas emissions are prevented or reduced.

The United Nations Economic Commission for Europe (UNECE), one of the United Nations five Regional Economic Commissions, has taken important steps to advance the transition to a more circular economy. In April 2021, at its 69th Session, UNECE requested its relevant Sectoral Committees and bodies to scale up their efforts to promote circular economy approaches and the sustainable use of natural resources. It also requested to consider how to enhance the impact of relevant existing UNECE instruments, including by proposing ways to identify, assess and fill gaps in governance and good practices (E/ECE/1494).

Over the last two years, the UNECE secretariat has responded to this request and worked to integrate the circular economy approach in the full scope of its relevant activity streams. Among others, this includes exploring the roles that financial institutions and instruments can play to accelerate the transition to circularity.

This policy paper discusses the role of selected financial products that, given the proper institutional settings, could act as enablers for circular economy transitions. It covers both public and private sources of finance, including public-private partnership. It describes the relevance of novel debt instruments (such as green bonds, transition bonds, sustainability-linked loans, amongst others) as well as new forms of investments that can foster sustainability (e.g. impact investing, blended finance). The goal is to provide a roadmap for policy makers willing to map all available financial resources that could be leveraged to finance the transition to circularity. The study also summarizes the conditions that are needed for creating an enabling policy environment and offers policy recommendations for institutional reforms on the way forward.

I am confident that the guidance provided will contribute to the implementation of the Addis Ababa Action Agenda to align financing flows and policies with economic, social, and environmental priorities, especially in developing countries and countries with economies in transition.

Elisabeth Türk
Director, Economic Cooperation and Trade
UNECE
Acknowledgements

This paper was drafted by climate and circular economy finance experts Jan Raes and Patrick Schröder.

The following UNECE colleagues provided substantive inputs to the draft: Lisa Amend, Tony Bonnici, Ariel Ivanier, Alicja Kacprzak, Michael Nagy, José Palacín, Jiawen Qu, Arthur Dylan Saillard and Roksolana Shelest.

In summer 2022 the paper was peer-reviewed through UNECE’s Circular STEP and received comments from national focal points: Anna Bladh Christiansson and Elisabeth Nichols. As part of Circular STEP, international experts, representatives of academia, think tanks, and financial institutions in the region also provided comments. Particular thanks go to Ela Yılmaz Akdeniz, Rumen Dobrinsky, Dimitri Koufos, Peggy Lefort, Indranil Majumdar, Gary Mclean, Josip Pervan, Claire Potdevin, Nilguen Tas, Shane Ward and Jon Mikel Zabala. The draft paper was also presented at several UNECE events, including UNECE’s Working Party on Public Private Partnerships (WP PPP) in December 2022.

The paper was edited by Lise Lingo and visual design was prepared by Ondine Jung.

The development of the series of policy papers is led by Elisabeth Türk, Director of Economic Cooperation and Trade Division (ECTD) and benefits from the UNECE-wide task force on circular economy, under the leadership of Dmitry Mariyasin, Deputy Executive Secretary of UNECE.
Executive Summary

A circular economy requires substantial public and private investment in hard and soft infrastructure, better technologies and processes for production, consumption and recycling. Although ample global liquidity is available and investors remain eager to finance innovation across the world, businesses and governments are also exploring new ways of financing circularity.

According to the UNEP Finance Initiative, circular economy finance can be defined as "any type of instrument in which the investments will be applied exclusively to finance, re-finance, invest in or insure in part or in full, new and/or existing eligible companies or projects that advance the circularity of our economies."

Among the multitude of financial instruments, there are several types that can support the circular economy transition. This UNECE paper provides a short overview of:

- Green bonds and transition/sustainable bonds
- Sustainability-linked loans and sustainability-linked bonds
- Impact investing by the private sector for the SDGs
- Blended finance
- Public-private partnerships

Also, multilateral or regional development banks can help shift towards circularity. This UNECE paper provides a brief overview of programs funded by the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Asian Development Bank (ADB), and the European Union (EU).

The use of these instruments requires addressing a number of cross-cutting issues. Prime among them is dealing with the perception that circular economy business models are models of high risk. Policy makers need to facilitate the de-risking of circular economy investment in priority areas, including by combining private and public finance. Adequately dealing with risk can help remove first-mover risks and enable the uptake of technologies that have a low market penetration rate. More broadly, it can be a catalyst highlighting the emerging gainful opportunities for investors.

The paper also discusses a number of other questions that arise when aiming to mobilize finance for the circular economy transition. There are, for example, questions about possible circular economy strategies for investors to foster better understand environmental, policy, reputation and trade-related risks, and questions about whether new Environmental, Social, Governance (ESG) aspirations (such as circular economy aspirations) are part of the fiduciary duty of money managers acting on behalf of their beneficiaries. Questions about measurement, including new ESG metrics, are relevant on both occasions.

Attention also needs to be given to achieving synergies between different policy areas, e.g. by aligning the financing of climate and circular economy transition agendas, as both policy areas address the question of how to modernize the economy around environmentally safe consumption and production methods, in line with SDG 12.

Finally, the paper offers a number of conclusions and recommendations that can help low and middle-income countries, including UNECE’s 17 programme countries, to overcome some of the barriers in mobilizing financing for the circular economy transition. These include:

- Promoting circular economy finance instruments:
  - Increase the availability of innovative finance tools and products for the circular economy
  - Increase risk sharing, including through blended finance instruments
  - Increase awareness and provide technical support for the use of circular economy finance instruments

- Making national regulatory and policy framework conducive for circular economy finance:
  - Des-risk circular economy investment in national priority sectors
  - Integrate the circular economy in national green policies and roadmaps
  - Align climate and circular economy transition agendas

- Maximizing synergies with other regional and international policy initiatives and fora:
  - Cooperate with key players such as the EU
  - Benefit from available programs from regional and multilateral development banks
  - Place circular economy finance in the context of the United Nations SDG and climate financing frameworks
Chapter 1

CIRCULAR ECONOMY FINANCE: DEFINITION AND FRAMEWORKS

Introduction

What is circular economy finance? There is no single definition; instead, definitions are being elaborated as service offerings and business models evolve. According to the UNEP Finance Initiative, “financing for circularity covers any type of financial service where money is exclusively used to finance, re-finance, invest in or insure in part or in full, new and/or existing companies or projects that advance the circularity of our economies.”

As part of upcoming mandatory standards in the EU for sustainability reporting, the “9R” framework is increasingly used by financial institutions and companies active in the EU to identify and classify the wide range of circular practices in business and related socio-economic activities that contribute to resource efficiency, resource recovery and the gradual transition to a circular economy. The collective goal of the nine behaviours in the framework is to contribute to the transition to a circular economy. Greater adoption of these and other circularity behaviours in economies is the key to the circular transition. The 9R circularity strategies within the production chain, in order of priority, appear in Figure 1.

Financial institutions need to earmark the money that goes to companies and projects that promote a circular economy by executing one or more of the 9 Rs, with the requirement that each initiative be underpinned by enhanced resource use efficiency. In this regard, and in the absence of a suitable scoring system for the circular economy that accounts for ESG aspects, a minimum requirement is to undertake a holistic life-cycle assessment – i.e., incorporating environmental, societal, and financial aspects – for each initiative and then review and update it throughout the life of the project.

---

### Figure 1  
**Circularity strategies within the production chain, in order of priority**

<table>
<thead>
<tr>
<th>CIRCULAR ECONOMY</th>
<th>LINEAR ECONOMY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smarter product use and manufacture</strong></td>
<td><strong>Useful application of material</strong></td>
</tr>
<tr>
<td><strong>R0 Refuse</strong></td>
<td><strong>R8 Recycle</strong></td>
</tr>
<tr>
<td>Make product redundant by abandoning its function or by offering the same function with a radically different product</td>
<td>Process materials to obtain the same (high grade) or lower (low grade) quality</td>
</tr>
<tr>
<td><strong>R1 Rethink</strong></td>
<td><strong>R9 Recover</strong></td>
</tr>
<tr>
<td>Make product use more intensive (e.g. through sharing products or putting multifunctional products on the market)</td>
<td>Incinerate materials and recover embodied energy</td>
</tr>
<tr>
<td><strong>R2 Reduce</strong></td>
<td></td>
</tr>
<tr>
<td>Improve efficiency in product manufacture or use by consuming fewer natural resources and materials</td>
<td></td>
</tr>
<tr>
<td><strong>Extended lifespan of products and their parts</strong></td>
<td><strong>Rule of Thumb:</strong></td>
</tr>
<tr>
<td><strong>R3 Reuse</strong></td>
<td>Higher level of circularity = Fewer natural resources used and lower environmental pressure</td>
</tr>
<tr>
<td>Enable reuse by another consumer of discarded products that are still in good condition and fulfil their original functions</td>
<td></td>
</tr>
<tr>
<td><strong>R4 Repair</strong></td>
<td></td>
</tr>
<tr>
<td>Repair and maintain defective products so they can be used with their original function</td>
<td></td>
</tr>
<tr>
<td><strong>R5 Refurbish</strong></td>
<td></td>
</tr>
<tr>
<td>Restore old products and bring them up to date</td>
<td></td>
</tr>
<tr>
<td><strong>R6 Remanufacture</strong></td>
<td></td>
</tr>
<tr>
<td>Use parts of discarded products in a new product with the same function</td>
<td></td>
</tr>
<tr>
<td><strong>R7 Repurpose</strong></td>
<td></td>
</tr>
<tr>
<td>Use discarded products or their parts in a new product with a different function</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Elaborated by the authors based on PBL, «Circular Economy: Measuring Innovation in the Product Chain», 2017. Available at https://www.researchgate.net/publication/319314335_Circular_Economy_Measuring_innovation_in_the_product_chain
Examples of potential projects that may warrant funding include the following:

- **Designing out waste in early stages**: circular design and production focused on reducing the loss of material and resources, preferably when products and services are still on the drawing table, improving efficiency, durability, functionality, modularity, upgradability, easy disassembly, and repair; materials that are recyclable or compostable and process technology that supports waste reduction.

- **Waste management focused on value and resources recovery**: separate collection and reverse logistics of waste, value retention of redundant products, parts, and materials, including value recovery from biomass waste and residues as food, feed, nutrients, fertilizers, biobased materials, or chemical feedstock, as well as reuse and/or recycling of wastewater.

- **Building for disassembly that promotes longevity**: creating products, equipment, or facilities that can be disassembled and their component parts repurposed, remanufactured, refurbished, repaired, reused such that their functional life is extended or the facility or system to which they belong may be extended.

- **Digital apps and services** that promote circular economy practices: waste reduction, reuse, repair, refurbishing, repurposing, and remanufacturing of end-of-life or redundant products and any type of asset with a product-as-a-service, reuse or sharing model that requires a digital backbone to function properly, service models based on short-term leasing, pay-per-use, subscription, or deposit return schemes that improve the traceability of assets and resources.

To these are added, among many others, policies in the field of land restoration and rehabilitation of degraded land, to return land and soil to a useful state; or policies that support provision of expert knowledge of the circular economy: intellectual property, inventions, patents, advice and tools, marketplaces and enabling services for other circular economy business models.

### Recent developments in the European Union

Policy in the EU is a major driver for the development of new instruments and funds for circular economy finance. Key policy frameworks include the Circular Economy Action Plan for a Cleaner and More Competitive Europe, a comprehensive body of legislative and non-legislative actions adopted in 2015 with the aim of transitioning the European economy from a linear to a circular model. The plan mapped out 54 actions, as well as 4 legislative proposals on waste. In March 2020, the European Commission adopted an updated version of the Action Plan. It includes measures to mobilize private financing in support of the circular economy and proposes the launch of a global circular economy alliance to explore starting a discussion on a possible international agreement on measuring natural resources.

---

In addition, the EU Taxonomy or EU Sustainable Finance Taxonomy⁴ is important for the financial sector and the circular economy in UNECE countries, as it has the power to steer money towards the circular economy transition. The EU Taxonomy is a classification system that sets performance thresholds for sustainable economic activities. The system is one of the first steps under the EU Action Plan for financing sustainable growth.⁵ The plan aims to mobilize finance for the transition to a low-carbon, resilient and resource-efficient economy by providing technical screening criteria. These non-financial criteria will help investors, companies, issuers, and project promoters to better understand the socioeconomic effects of their financial activities.

The EU taxonomy for banking and finance asks financial institutions to apply to investment projects the “do no significant harm” principle⁶ for six environmental objectives: climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, waste prevention and recycling, pollution prevention and control, and protection of healthy ecosystems. It requires projects to “substantially contribute” to at least one environmental objective and to “do no significant harm” to any of the other environmental objectives.

The first two objectives have passed into EU law. The remaining ones including the circular economy transition itself are expected to pass into EU law by 2023. For the circular economy, the issue will be whether the objectives can be treated in isolation. The taxonomy asks institutions to report on significantly positive contributions to all six environmental objectives, of which the circular economy is one and tied into the other five. Companies subject to disclosure requirements under the revised EU Non-Financial Reporting Directive, including large banks and insurers, will need to make disclosures with reference to the taxonomy. Once the objectives pass into law, more financial instruments can be issued that comply with the EU Taxonomy, enlarging the pool of money available for the transition to a circular economy.

A growing number of sustainable finance instruments can be used to support circularity and include it as a non-financial criterion (figure 2). For instance, green bonds have already been used as tools to finance low-carbon solutions considering climate finance; they can be extended for circular economy finance. All bonds share common principles and mechanisms, as do all listings requirements and exchange-traded funds. These instruments are relevant for financing circular activities, after they are adjusted to deliver the intended impact on circular use of resources.

---


**Figure 2  Sustainable finance instruments supporting circularity**

### Sustainable Finance Instruments

- **Green bonds**
  - Waste reduction, recycling and management
  - Resource efficiency
  - Eco-efficient products
  - Pollution prevention and control

- **Transition bonds**
  - Decarbonization of emission intensive industries
  - Resource and energy efficiency improvements (e.g. for cement, metals and glass sectors)

- **Sustainability-linked loans (SSLs) and bonds (SSBs)**
  - Align KPIs with circular economy principles
  - Various sectors, e.g. energy and utilities, fashion and textiles, pulp and paper products and pharmaceuticals

- **ESG investing**
  - ESG metrics that relate to resource efficiency and material use reduction, e.g. GRI 306: WASTE 2020

### Relevance for the Circular Economy

**USE OF PROCEEDS FOR:**

- Waste reduction, recycling and management
- Resource efficiency
- Eco-efficient products
- Pollution prevention and control
- Decarbonization of emission intensive industries
- Resource and energy efficiency improvements (e.g. for cement, metals and glass sectors)
- Align KPIs with circular economy principles
- Various sectors, e.g. energy and utilities, fashion and textiles, pulp and paper products and pharmaceuticals
- ESG metrics that relate to resource efficiency and material use reduction, e.g. GRI 306: WASTE 2020

Chapter 2
FINANCIAL INSTRUMENTS SUPPORTING THE CIRCULAR ECONOMY: SELECTED EXAMPLES

Green bonds and transition/sustainable bonds

Green bonds differ from regular bonds in that they also have non-financial "use of proceeds" clauses. Financial incentives can be linked to successful outcomes, but it is crucial that the money (the proceeds of the bond issue) goes to assets and projects that contribute to the green goal of the bond. Use-of-proceeds financing that focuses on resource efficiency and circularity is a useful financial instrument for moving towards a circular economy.

In the public space, the EIB is one of the largest emitters of green bonds. The use of proceeds for a concrete socioeconomic goal is a key approach for the EIB, to ensure green results. In early 2022, the EIB issued a guarantee agreement through which the European Commission will support up to €26.7 billion of EIB financial operations, to enable public investment in sectors such as clean energy (SDG 7), digital and transport infrastructure (SDG 11), health (SDG 3) and education (SDG 4) over the next seven years. This guarantee agreement focuses on the Western Balkans and the Southern and Eastern Neighborhoods regions. Similarly, the EBRD has issued €8 billion in green bonds, split as €5.5 billion in 97 transactions as environmental sustainability bonds, €1.2 billion in 12 transactions as climate resilience bonds, and €1.3 billion in 15 transactions as green transition bonds. The terms “green bond”, “transition bond” and “sustainability bond” are to a great degree interchangeable. To clearly understand the difference between various issues of a bond, investors will need to read the bond prospectus. The bond prospectus contains detailed information about the issuer and the financial and economic activities, including any specific risk mitigation factors that lower or eliminate environmental risks. To determine the impact of the bond, the underlying non-financial criteria need to be well scrutinized.

Green bonds can be structured with a use-of-proceeds clause around the theme of the circular economy. Contribution to the progress of the circular economy can be described by various metrics: resource loss avoided; greater resource efficiency; waste streams avoided due to cleaner production, including emissions avoided to air, soil, or water; tonnage of secondary (recycled and reused) materials used; and decrease of illness and loss of life due to improved safety by reduction or replacement of hazardous materials and/or dangerous chemicals.\(^\text{10}\)

While green bonds can support the circular economy, they have not typically focused on doing so before now. They are held back by the fact that they may cover only a portion of a company’s activities. Sustainability-linked bonds, with appropriate key performance indicators (KPIs), can be more appropriate as they take a view of the sustainable performance of the entire company.

For these systems and the associated metrics to work properly, there needs to be a reliable and comprehensive system for monitoring embedded efficiency. To reduce the risk of adverse effects on resource efficiency, a holistic life-cycle assessment is needed, one that is updated as the projects underlying the financial bond make progress.

In the private sector, an exemplary sustainability bond linked to the circular economy\(^\text{11}\) was issued by the Banca Intesa San Paolo of Italy at the end of 2019. With a €5 billion credit facility, the bond funds projects, and businesses that support the circular economy transition. The bank included in its bond framework the following circular economy categories for the use of proceeds of the bond: solutions for lifetime extension of goods and materials; regeneration of natural capital (e.g. restoration of degraded soils); circular design focused on waste and pollution reduction; production processes producing or dependent on recycled resources; resource efficiency in the supply chain; reverse logistics; collection, separation and recycling of used materials; and innovative technologies to enable circular business models. This last category includes information technology solutions that improve resource traceability and provide circular economy marketplaces. Examples of associated metrics are the amount of waste reprocessed and used as a circular input, the amount or percentage increase of biobased and/or recycled materials used, the amount of food waste prevented and the amount of recyclable and/or compostable goods produced. Orders reached over €3.5 billion. Banca Intesa Sanpaolo placed €750 million of bonds at a fixed rate of 0.75 per cent, with a five-year maturity. Box 1 describes some green bonds issued in countries with economies in transition.

In 2019, the Climate Bonds Initiative published updated waste management criteria for green bonds, and made them available as a climate bonds standard.\(^\text{12}\) These criteria apply to assets and projects related to the following aspects of waste treatment: collection infrastructure, containers, sorting to separate recyclables, processing into secondary raw materials, repair,

---


composting, anaerobic digestion of organic waste, thermal treatment with energy recovery of residual waste, and installation of gas recovery systems for landfill sites.

The criteria can be customized to address food waste. An example of a food waste reduction bond was issued by the World Bank,13 which in 2019 launched the first Sustainable Development Bond to raise awareness of food loss and waste. It raised equivalent of $2 billion through the issue of 25 sustainable development bonds in 10 currencies. The proceeds will be used to finance assets and projects that combat food loss and waste.14

### Box 1 Green bonds in UNECE member States

In **Kazakhstan**, green bonds are a new approach to sustainable finance. The Astana International Financial Centre introduced definitions of green finance, green bonds, green loans, green projects, and green taxonomy for the Environmental Code in 2021. At the end of that year, the Government adopted the “Taxonomy of Green Projects to Be Financed through Green Bonds and Green Loans”. Kazakhstan’s green bonds are linked to the country’s National Project on Entrepreneurship Development for 2021–2025.

(Source: [https://www.greenfinanceplatform.org/blog/snapshot-kazakhstans-sustainable-finance-market/](https://www.greenfinanceplatform.org/blog/snapshot-kazakhstans-sustainable-finance-market/))

**Serbia** was the first Western Balkans country to issue a green bond. In September 2021, it successfully issued €1 billion in its first sale of green bonds in the international market, after adopting the necessary legal framework, which was produced in accordance with the standards of the International Capital Markets Association. The bond, which had a seven-year maturity and 1 per cent annual coupon security, was oversubscribed by more than three times. The proceeds of the green bond issue will be invested in the rail and subway network, sewerage, water and wastewater processing, flood protection, biodiversity protection, pollution prevention and control, and waste management as well as to provide support for energy efficiency measures and the installation of rooftop solar panels.


The **Republic of Türkiye** has implemented a framework for sovereign green bonds but has not yet moved to issuing such bonds. In November 2021, the country’s Capital Market Board published a draft guide on green bonds and green lease certificates. The objective was to enable the issuance of green bonds and green lease certificates in the Turkish capital market in order to strengthen investor confidence in transparency and external verification and diversify investment opportunities in projects that contribute to sustainable development. The guide includes a range of projects that are relevant for the circular economy transition, including pollution prevention and control; sustainable water and wastewater management; and products, production technologies and processes that are eco-efficient or adapted to the circular economy.

(Source: [Turkeys CMB to issue more green bonds and green lease certificates (cms-lawnow.com)](https://cms-lawnow.com))

Source: Elaborated by the authors and the UNECE Secretariat.

---


14 Ibid.
Sustainability-linked loans and sustainability-linked bonds

Sustainability-linked loans (SLLs) and sustainability-linked bonds (SLBs) focus on companies that improve their environmental and social performance. These instruments have gained popularity in the financial sector. In comparison to green and transition bonds, which are strongly linked to financing environmental and sustainable projects, SLLs and SLBs give more flexibility to the borrower or bond issuer to spend the capital for organizational sustainability purposes.

The terms and conditions of an SLL or SLB can address the entirety of the GHG emissions (Scope 1, 2 and 3) of an organization. An SLL or SLB can contain metrics that involve reduction of carbon intensity or of absolute carbon emissions of the organization as a whole. SLLs and SLBs cover a whole range of KPIs that refer to the sustainability policy and environmental risk appetite of the issuer. In setting up the financial instrument, these KPIs can be aligned with circular economy principles (e.g., number of metric tons of material recovered, percentage usage of secondary materials).

Since September 2020, SLBs have been issued across a variety of sectors including energy utilities, fashion, cosmetics, agriculture, pulp and paper products, and pharmaceuticals. They have a voluntary mechanism for reporting progress on sustainable KPIs to stakeholders and investors, mostly through the regulatory, integrated or sustainability reporting cycles and not specifically attached to the financial instrument, as is the case with green bonds.

Some regulators and policymakers, together with stock exchanges, have imposed mandatory environmental and sustainability reporting obligations for listed companies that raise capital through those stock exchanges. In this way, growth in the quantity and quality of sustainability reports supports the growth of SLLs and SLBs. Over time SLL and SLB issues have grown towards the amount of $400 billion on an annual basis. This success means that the pressure for transparency from responsible investors is mounting. There is a push in the financial sector for clear and validated KPIs in SLB and SLL contracts, preferably verified and audited by second parties.

---


18 Sustainalytics, “Helping issuers bring green, social and sustainability bonds to market”. Available at https://www.sustainalytics.com/corporate-solutions/sustainable-finance-and-lending/second-party-opinions#:~:text=A%20second-party%20opinion%20%28SPO%29%20from%20Sustainalytics%20provides%20investors,market%20practices%20and%20expectations%20from%20the%20investment%20community.
Impact investing by the private sector for the SDGs

Impact investors are a growing investment community that focuses on the potential to generate positive social, environmental, and cultural effects alongside a financial return. It is a type of private sector investment, typically in low- and middle-income countries, that aims to improve environmental or social outcomes. Impact investors are willing to accept a below-market rate of return and often lower liquidity since their focus is on making a measurable, positive social or environmental impact in addition to realizing a financial return. Impact investors voluntarily and intentionally accept the risk of low or no returns, in exchange for impact (e.g., better lives, better health, better education, less pollution, more circularity).

Often impact investments are part of a broadly diversified portfolio. Impact investing portfolios and fund-of-fund impact strategies are expanding, which shows that the private sector – not just governments and philanthropic organizations – can contribute to raising capital to solve global challenges. Impact investment capital has an increasing role to play in achieving the SDGs. Impact investment is destined to grow, fueled by the desire of wealth management clients of financial institutions and pension funds to use (part of) their investments for a sustainable development impact.

The search for real-world positive impact is precisely what is driving clients of financial institutions towards responsible investment in line with sustainable development – away from traditional sectors, such as oil and gas, and into sectors that contribute to the environment, including decarbonization strategies, renewable and distributed energy systems, electrification, and energy storage. This trend has been picking up momentum, and it will become increasingly important and ultimately necessary for promoters of public sector projects to address the ability to raise capital from the impact investment community when developing new projects.

The size of the global market for impact investing before the COVID-19 pandemic was estimated to be on the order of $502 billion. Given its size and scope, impact investing has the power to be an important component in filling the SDG financing gap. Circular economy solutions that receive public financing can contribute even more to the SDGs by smartly combining them with private capital originating from impact investments and SDG based lending mechanisms.

In fact, an increasing number of funds provide diversified access to impact investments that aim to achieve more transparent impact than regular ESG based approaches. Investing through an impact fund can provide the benefit of the fund managers’ expertise, along with concrete measures of investment or lending impact (e.g., decent jobs created, volume of water saved, health risks avoided). Investing in private companies directly offers some of the most immediate opportunities for impact as well. Just like investing in listed equity, investing private equity in companies enables one to directly allocate capital to companies that show the most positive impact; however, it has an inherently higher risk than funds and listed equity. Box 2 describes some examples of impact investments in countries with economies in transition.

---

Chapter 2

Financial instruments supporting the circular economy: selected examples

Circular STEP
Accelerating the Transition Towards a Circular Economy in the UNECE Region: Mobilizing Financing

Box 2
Impact investing in Central Asia

So far, Central Asia has not been a main market for impact investment funds, but new initiatives are emerging. One example is the Central Asia Impact Fund, managed by AV Ventures and AV Frontiers, an investment management firm based in Bishkek, Kyrgyz Republic. AV Frontiers is co-owned by AV Ventures and the Kyrgyz financial institution Frontiers. As an evergreen blended-finance vehicle, the Fund aims to raise $30 million for follow-on regional funding for underserved SMEs and to support transformative changes in the regional economy.

Another example is Gazelle Finance, which makes growth-stage investments to bridge the funding gap facing underserved SMEs in Europe and Asia, including increasing wages and employment and business opportunities for small farm holders. In 2016 Gazelle Finance established a $70 million fund to make growth-stage investments in underserved SMEs in the Eurasia region. The fund will invest in about 150 fast-growing SMEs in Armenia, Georgia, Kyrgyzstan and the Republic of Moldova, in the form of income participation loans and self-liquidating equity investments, ranging from $100,000 to $1 million per deal.

Source: Elaborated by the authors and the UNECE Secretariat.

Blended finance

Another financing approach that may promote circular economy transition is the use of blended finance. Blended finance can be used as a de-risking approach for economy investments by removing or mitigating risk across various tranches of investment and/or de-risking certain aspects of the financing structure and thereby boosting investor confidence. Blended-finance instruments can furthermore incorporate first loss guarantees, concessional capital, or overall guarantees to mitigate risk, or include the use of forms of risk insurance or technical assistance funds or design-stage grants to target specific areas of project development risk.

Blended-finance approaches have been used in the climate finance arena and at the national level (for example, by national development banks) for a number of years, so the approach is not new. Yet, in these approaches donor interest in official development assistance funds is growing. The emphasis is shifting from public–public blending to public–private blending.

Blended-finance mechanisms can attract private sector capital for circular economy projects in low- and middle-income countries. Thus, blended finance can overcome barriers in those countries that significantly add to risks and achieve real development impact. Blended finance can provide significant benefits to parties engaged in promoting development. An example of a blended-finance programme for circularity and development impact is the EBRD’s Circular Economy Regional Initiative (CERI) (for detail, see section 6). Box 3 describes some blended-finance approaches in countries with economies in transition.

Box 3 Blended-finance examples from UNECE member States

The Western Balkans Investment Framework (WBIF) is a blending platform that supports socioeconomic development and accession to the EU across the Western Balkans by providing finance and technical assistance for strategic investments. It is a joint initiative of the EU, financial institutions, bilateral donors, and the governments of the countries in the Western Balkans. The WBIF provides financing and technical assistance to strategic investments in the energy, environment, social, transport and digital infrastructure sectors. It also supports private sector development initiatives. The Framework awards grants for infrastructure project preparation activities as well as for infrastructure investments, based on competitive procedures. The WBIF has allocated €1.4 billion in grants to Western Balkans beneficiaries, matched by €6.5 billion in signed loans for projects with a total estimated value of €22.4 billion. Waste management and wastewater treatment systems are key projects. Going forward, the circular economy will need to be integrated more prominently into the WBIF project portfolio.

An example of blended finance in Tajikistan is the Pamir Clean Energy PPP project, which leverages sustainable finance by a combined public-philanthropic injection of grants and equity in a below-investment-grade country. The solution was for the Swiss Government to supplement the low utility tariff. The Aga Khan Foundation provided the equity. The World Bank provided part of the debt, with the rest mobilized from private financial institutions. The Government of Tajikistan contributed by handing over the infrastructure and concessions for a period of 25 years.

As a result, the population in Pamir has access to clean, affordable, and reliable electricity to power a sustainable circular economy. The same services are also exported across the border to Afghanistan, to remote regions of that country where diesel-fueled generators were hitherto used to satisfy energy needs.

Source: Elaborated by the authors and the UNECE Secretariat.

---


Public-Private Partnerships

PPPs are a project delivery tool employed by public entities that provide public infrastructure and/or public services through long-term contractual arrangements that typically involve the private partner financing the contemplated improvements and/or services in return for long term repayment by governments or users. In fact, they are sometimes considered as much a financing solution and style of tendering as they are a project delivery approach. Train lines, airports, ports, water treatment facilities, schools, courthouses, public office buildings and the like can all be delivered by way of PPPs. Though each project is different and varying degrees of design, construction, operation and/or maintenance may be undertaken in each, the private financing aspect is an important motivation for governments as it can expand or preserve overall budgetary capacity while allowing them to address public infrastructure and service needs.

Public procurement and public infrastructure and service delivery is a major component of economic activity in many countries. The built environment is now widely acknowledged to be responsible for upwards of 79 per cent of global greenhouse gases and is estimated to consume 60 per cent of the world’s materials. Therefore, the PPP projects that incorporate circular economy principles can be an important tool in achieving the circular economy transition. In fact, SDG 17 calls for promoting global partnerships and cooperation between public, private and civil society parties, so PPPs can be a useful vehicle for advancing all the SDG calls to action in addition to financing circular economy aspirations.

Circular solutions for water management and sanitation infrastructure, in particular, are important in the SDG context, especially for water use in the agriculture sector in Central Asia.

UNECE developed the “PPP for the SDGs” approach, which promotes well-designed infrastructure projects that put “people” and the “planet” at the core. The approach seeks to ensure people’s access and equity to public services, strengthen the economic effectiveness and fiscal sustainability of projects, improve environmental sustainability and resilience, showcase the viability and replicability of PPP projects, and demonstrate a project’s intent to be inclusive and engage with all stakeholders. The UNECE PPPs for the SDGs approach bring together the following five PPPs for the SDGs desirable outcomes. Box 4 describes the UNECE approach.

If successfully implemented, PPPs can foster investment in public infrastructure; lower costs of project construction, operation or maintenance; and have an overall positive effect on economic activity in a jurisdiction. By further incorporating circular economy concepts in a PPP's design, tender, finance, construction, and long-term operation and maintenance, governments have the opportunity to embed much-needed circular economy approaches within public infrastructure and service delivery, in projects that can last in excess of 30 years.

Consequently, PPPs are a viable option for governments to further the circular economy transition through their own asset portfolio management, development and financing activity, by aligning their infrastructure policies, delivery strategies and desires towards maximizing circular economy outcomes. PPPs can further intentions to provide high-quality, efficient, public infrastructure that improves facility performance and public service delivery, all while incorporating the 9Rs of a circular economy.

28 “Built environment” refers to the human-made environment that provides the setting for human activity, ranging in scale from buildings to cities and beyond. See https://en.unesco.org/disaster-risk-reduction/built-environment.
Box 4  UNECE PPPs for the SDGs approach

In furtherance of the SDGs and target 17.17 in particular, UNECE has developed “PPPs for the SDGs” approach that encourages PPPs to achieve not only the project objectives and value for money for the government, but also to further the SDGs by achieving value for people and for the planet. PPPs for the SDGs are thus designed to achieve public infrastructure and service needs and work toward the following five desirable outcomes:

1. Access and equity
2. Economic effectiveness and fiscal sustainability
3. Environmental sustainability and resilience
4. Replicability
5. Stakeholder engagement

PPPs for the SDGs are thereby an enhanced model of PPPs, designed to implement the SDGs and be “fit for purpose”. In ensuring value for people and for the planet, this approach is designed to overcome some of the perceived weaknesses of both traditional procurement and traditional PPP models.

UNECE has developed and published several materials to support the implementation of PPPs for the SDGs. Notably, it developed Guiding Principles on PPPs in Support of the SDGs in 2019 and a PPP Evaluation Methodology for the SDGs in 2021 to assist governments in assessing whether a PPP project meets the five desirable outcomes for the SDGs.

Source: UNECE Secretariat.

Chapter 3

AVAILABLE MULTILATERAL FINANCE PROGRAMMES FOR CIRCULARITY

This section introduces some of the circular finance programs available in selected UNECE countries from multilateral finance institutions such as the programs funded by the EBRD, the EIB, the ADB and the EU. The main details are summarized in Table 1.

The EBRD has established expertise in identifying and financing circular economy opportunities. From 2014 to 2019, the Bank financed more than 100 projects supporting circular economy products and business models, contributing more than €1 billion in finance.\(^{31}\) In November 2021, the EBRD initiated the CERI to address the barriers preventing transition to a circular economy. The programme includes the Republic of Türkiye and the Western Balkans, with support from the Global Environmental Facility (GEF) and Austria. It is the first dedicated regional programme for the circular economy. The programme will support investment in the private sector, particularly SMEs, to implement innovative and resource-efficient technologies and adopt circular business models in Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia and the Republic of Türkiye. The GEF is funding the programme with $13.76 million, which will be blended with EBRD finance of approximately $140 million. The programme will be complemented by technical cooperation funding of $1 million from the Austrian Federal Ministry of Finance.\(^{32}\) The CERI consists of three components: (1) implementation of circular performance-based financing (concessional co-financing), (2) technical assistance for adopting circular technologies, processes and strategies; and (3) monitoring and evaluation.

In the case of Kazakhstan, in June 2022 the EBRD approved a new strategy setting out the Bank’s priorities in the country for the next five years. The strategic approach to operations will be based on three pillars: (1) fostering private sector competitiveness and improving connectivity; (2) supporting Kazakhstan’s pathway to carbon neutrality; and (3) promoting economic inclusion, youth and gender equality. Although the new strategy does not have an explicit circular economy focus, the development of a decarbonized and climate-resilient energy system will be supported, including carbon markets, cleaner energy generation and reduced air pollution. The EBRD will finance and advise companies, including small businesses, on decarbonization and will support green municipal and transport infrastructure projects.\(^{33}\)

In the Republic of Türkiye, the EBRD has operated a circular economy platform (previously

---


Chapter 3
Available multilateral finance programmes for circularity

Circular STEP
Accelerating the Transition Towards a Circular Economy in the UNECE Region:
Mobilizing Financing

referred to as Türkiye Materials Marketplace) since February 2016. Through it, companies participate in the country’s largest business network focusing on the circular economy. As of June 2020, more than 100 companies had become members. Since 2018, the EBRD has run a dedicated technical assistance programme called “Circular Vouchers” targeting selected platform members. The aim is to support companies in identifying viable circular investments (e.g. technological options available to introduce alternative raw materials in the production process and/or transforming by-products), adopting circular business models and introducing circular elements in their governance model.

The EIB plans to increase its investments in the Western Balkans and support the region’s economic transition. In 2020, it signed €873 million of new investment in the sub-region for the development of vital infrastructure and private sector support. In May 2021, the EU and the EIB signed a new guarantee agreement to enable crucial public investment over the next seven years in sectors such as clean energy, digital and transport infrastructure, and health and education. It will enable financing for implementation of the Economic and Investment Plans for the Western Balkans. Under the agreement, the EIB can finance investment projects in Armenia, Azerbaijan, Georgia, the Republic of Moldova and Ukraine to support the European Neighborhood Policy, in particular the Eastern Partnership launched in 2009. In 2021, the Government of Uzbekistan started a cooperative effort with the United Nations Development Programme (UNDP) to develop an integrated SDG financing strategy that accelerates progress in ending poverty, protecting the environment and achieving the 16 national SDGs.

Uzbekistan needs an additional annual investment of at least $6 billion and additional external financing of about $4 billion, or 7 per cent of gross domestic product, to address the external shock and domestic impact of the pandemic. There are opportunities to include the circular economy in the SDG financing strategy. To make progress towards the SDGs, Uzbekistan issued a Sovereign SDGs Bond on the London Stock Exchange in 2021. This is considered an important step forward in the country’s commitment to achieving the SDGs, and a major advance for development finance worldwide. The bond will facilitate the transfer of resources from private funds to finance public SDG-oriented programs in seven areas: education (SDG 4); water management (SDG 6); health (SDG 3); green transportation (SDG 9 and SDG 11); pollution control (SDG 11); sustainable management of natural resources (SDG 13 and 15); and green energy (SDG 7). Uzbekistan’s SDG Bond Framework aligns with the Sustainability Bond Guidelines 2021, the Green Bond Principles 2021 and the Social Bond Principles 2021. All these SDG areas are relevant to the circular economy, in particular.


water management, pollution control and sustainable management of natural resources.

In March 2022, the EBRD approved loans of $120 million to municipal utilities in western Uzbekistan, addressing priority environmental issues there by extending long-term sovereign loans of up to $120 million for the benefit of Toza Hududs, a regional utility company responsible for solid waste management. The financial package consists of a $50 million loan for necessary infrastructure upgrades in the Horezm region and a $70 million loan for similar purposes in Karakalpakstan. Uzbekistan’s national solid waste management strategy is one of the Government’s priorities, as less than half of the population benefits from modern waste management services. In many regions, none of the waste facilities can be classified as sanitary landfills meeting international standards; many lack basic protection or specialized service equipment and therefore pose a major threat to the environment and to public health. The Horezm region, home to 1.7 million people, generates about 280,000 tons of solid waste a year. In rural areas, home to 67 per cent of the region’s population, only 10 per cent of residents benefit from waste management services.38 Similarly, in Kazakhstan, the ADB and the Ministry of National Economy have created a platform for coordinating development partners and are mobilizing finance to achieve the country’s SDG targets by 2030. From 2019 to 2022 the ADB and UNDP, confronting the lack of countrywide target indicators for SDGs and a comprehensive methodology for measuring knowledge and investment gaps, supported decision makers on funding flows between national institutions and international development agencies available for SDGs.39 Circular economy-specific investments still need to be included in any Kazakhstan SDG finance strategy.

In the Republic of Türkiye, to encourage companies to reduce waste, in 2015 the EBRD launched the Near Zero Waste programme. It consists of three interlinked components: (1) a selection of subprojects supported by concessional financing from the Climate Investment Fund’s Clean Technology Fund and technical assessments to help companies adopt new waste minimization techniques and technologies; (2) policy dialogue to strengthen legislative and regulatory frameworks related to minimizing waste; and (3) knowledge-sharing activities, to encourage implementation of best practices.40 The sustainable finance market in the country has been growing, and all related regulatory bodies such as BDDK and the Ministry of Treasury and Finance have published frameworks, guidelines or action plans related to sustainable finance. Upcoming taxonomy and legal framework studies are expected to further boost sustainable investment in Turkish financial markets. In 2021, green bonds accounted for $836 million of the $3.1 billion bond market in the country.41

Coordinating with UNDP, Uzbekistan joined the Integrated National Financing Framework Facility in May 2022. In this context, Uzbekistan became one of the first countries in the Central Asian region to issue a sovereign SDGs Bond. The Facility is helping the country implement strategies and reforms for financing national sustainable development priorities as well as attainment of the SDGs. The government expects that it will help to build a holistic approach to mobilizing public and private finance by strengthening direct dialogue between government, private sector and civil society.42

Accelerating the Transition Towards a Circular Economy in the UNECE Region: Mobilizing Financing

### Chapter 3

#### Available multilateral finance programmes for circularity

**Table 1: Overview of selected multilateral finance programmes with circular economy elements**

<table>
<thead>
<tr>
<th>Country</th>
<th>Supporting multilateral institution</th>
<th>Name of initiative</th>
<th>Scope</th>
<th>Circular economy aspects and opportunities</th>
</tr>
</thead>
</table>
| Kazakhstan            | EBRD                                | Country strategy 2022–2026                                                         | 1. Foster private sector competitiveness and improve connectivity  
2. Support Kazakhstan’s pathway to carbon neutrality  
3. Promote economic inclusion, youth and gender equality | Mainly focused on renewable energy development and decarbonization  
CE component narrowly focused on waste, wastewater and water projects and ensuring alternatives are considered, to identify investments that support the circular economy and resource efficiency |
| Kazakhstan            | ADB                                 | SDG Platform (2019–2022)                                                           | Support decision makers on funding flows between national institutions and international development agencies and mobilizing finance available for achieving SDGs | Greater capacity of decision makers to close investment gaps for SDGs relevant to the circular economy   |
| Republic of Türkiye   | EBRD                                | Near Zero Wasteprogramme (2015)                                                    | Concessional financing from the Climate Investment Fund’s Clean Technology Fund and technical assessments | Company support for adoption of new waste minimization techniques and technologies such as PVC recycling |
| Republic of Türkiye   | EBRD                                | Technical assistance programme of circular vouchers targeting selected platform members (since 2018) | Support companies in identifying viable circular investments | Desk-based review support and technical assistance service to identify high-potential opportunities such as product life extension, reuse, remanufacturing, recycling and upcycling |
### Table 1: Overview of selected multilateral finance programmes with circular economy elements

<table>
<thead>
<tr>
<th>Country</th>
<th>Supporting multilateral institution</th>
<th>Name of initiative</th>
<th>Scope</th>
<th>Circular economy aspects and opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uzbekistan</td>
<td>UNDP and Integrated National Financing Framework Facility</td>
<td>Sovereign Sustainable Development Goals Bond (2020–2023)</td>
<td>Mobilizing public and private finance as well as strengthening the dialogue across the government, private sector and civil society</td>
<td>Health financing solutions, green bonds (sukuk, or Sharia-compliant financial certificates) for environment-friendly projects; circular economy focus so far unclear</td>
</tr>
<tr>
<td>Western Balkans and Türkiye</td>
<td>EBRD (with Global Environment Facility)</td>
<td>Circular Economy Regional Initiative (CERI) (2021)</td>
<td>Support investment in the private sector, particularly SMEs</td>
<td>Implement innovative and resource-efficient technologies and adopt circular business models</td>
</tr>
<tr>
<td>Western Balkans</td>
<td>EIB</td>
<td>New Guarantee Agreement (2021)</td>
<td>Enable crucial public investment in sectors such as clean energy, digital and transport infrastructure, health and education over the next seven years, and enable financing for implementation of the Economic and Investment Plans for the Western Balkans</td>
<td>Invested €853 million across the sub-region in 2021 for sustainable development, focusing on SME support, wastewater infrastructure and digital projects</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors and the UNECE Secretariat

2/2
Chapter 4

INCENTIVE STRUCTURES AND MEASUREMENT CHALLENGES

When aiming to expand the use of circular finance, a number of cross-cutting questions arise. Among them are questions about possible circular economy strategies for investors to foster better understand environmental, policy, reputation and trade-related risks, and questions about whether or not new ESG aspirations (such as circular economy aspirations) are part of the fiduciary duty of money managers acting on behalf of their beneficiaries. Questions about measurement, including news ESG metrics, are relevant on both occasions.

ESG investment strategies for financial institutions

An ESG investment strategy that specifically includes circular economy aspirations requires improving environmental performance of financial institutions, so as to optimally support improved financial and environmental performance. A circular economy strategy for investors can help them to better understand environmental, policy, reputation and trade-related risks.

The addition of ESG metrics that relate to resource efficiency and material use in the context of the 9R behaviours is a niche that is still being developed. Several investors have introduced circular economy–related investment funds and mandates. Early adopters include BlackRock, RobecoSAM and MFS Investment Management. Other circularity-based frameworks with variations of the 9Rs have been developed by a number of smaller investors.

In circular economy ESG investing, one area ripe for development is the ESG scores themselves. These scores form an important input for investment managers, to help guide their

strategies. ESG scores are not automatically tied to the circular economy transition or investment performance measurement.\(^{48}\) In general, ESG investing and analysis is backed by numerical, non-financial metrics on ESG performance.\(^{49}\) Still, the scoring of the ESG criteria can be subjective and can differ substantially in approach and objective\(^{50}\) and among ratings agencies and metrics used.\(^{51}\)

For this integration of ESG scoring and the circular economy to happen, much work is being carried out on circularity metrics. Contributions by the United Nations Principles for Responsible Investment, the UNEP Finance Initiative, the World Business Council for Sustainable Development and the Ellen MacArthur Foundation\(^{52}\) influence and inform the ESG scoring process of investors to better integrate metrics of circular economy approaches into ESG frameworks.

---

**Fiduciary duty in relation to the promotion of circular economy finance**

There is ongoing debate in the financial sector on whether ESG aspirations (such as circular economy aspirations) are part of the fiduciary duty of money managers acting on behalf of their beneficiaries.\(^{54}\) This debate also touches on circular economy finance.\(^{55}\) It depends on whether fiduciary duty in the financial sector is defined as a narrowly scoped set of strictly financial responsibilities or more broadly scoped to include the full set of ESG-related concerns. Considering these additional, non-financial efforts and concerns requires making sure that financial returns are also backed up by value creation and positive socioeconomic

---


\(^{51}\) ESG Ecosystem Map ([weforum.org](https://weforum.org)).


\(^{54}\) UN Environment Programme, “Fiduciary duty in the 21st century”. Available at [https://www.unepfi.org/investment/history/fiduciary-duty](https://www.unepfi.org/investment/history/fiduciary-duty); Legal Information Institute, “Fiduciary duty”. Available at [https://www.law.cornell.edu/wex/fiduciary_duty](https://www.law.cornell.edu/wex/fiduciary_duty).

impacts.\textsuperscript{56} If fiduciary duty is confined to only financial criteria, then investments are operating blindly – they may achieve the expected return on investment but may have negative environmental impacts.

In all cases, fiduciary duty is regarded as a core responsibility of the financial sector towards its clients. A financial intermediary is tasked to secure the client’s interest and steer towards the client’s desired outcomes. From the perspective of circular economy finance, this would mean the fiduciary duty requires the investor to incorporate ESG criteria that touch upon the transition from linear to circular economy models in the investment process, in line with contractually agreed investment time horizons.\textsuperscript{57}

In practice, investment managers working in circular economy finance require an engagement strategy to encourage high standards of circular performance in the operations of the investment targets. An investment opinion is based on conversation with management and company disclosures on efforts, e.g. to reuse, reduce, recycle and improve resource efficiency and on greater use of renewable energy sources. Beneficiaries’ preferences and contractual agreements play a crucial role here, as they do for fossil fuel divestment strategies.\textsuperscript{58}

The desire for stability in financial returns can, however, limit support for circular economy aspirations in the financial sector. De-risking is therefore crucial if returns in the circular economy are to live up to the expectations of clients and investment managers. De-risking requires a policy environment that enables the circular economy, that progressively supports extended producer responsibility (EPR)\textsuperscript{59} and other policy measures promoting a circular economy such as the focus on full life-cycle costs and the cost of decommissioning.\textsuperscript{60}

The circular economy at times is perceived as riskier, although this is not necessarily the case.\textsuperscript{61}

The resilience of the financial system depends on its ability to integrate socioeconomic changes and the speed with which it is able to do so.\textsuperscript{62} Although fiduciary duty does not need to be linked to a “just transition”, it is an important consideration for financial institutions from a social perspective. For more capital to flow to a just transition towards a circular economy, investment mandates and agreed fiduciary duties will need to be adapted accordingly. Contracts with clients will need to stipulate that the investment manager needs to apply a broader set of criteria for decision-making related to the 9R framework


and resource efficiency in the operations of investment targets. The focus on the Just Transition Principles, developed and adopted by the multilateral development banks in 2021 to help guide international finance to support a just transition (see Box 5). To ensure consistency, credibility and transparency in their efforts, additional criteria in the investment mandate are also required. These criteria relate to labor rights, job creation, targeted training of workers, living wages, health, education and gender equality. When more concrete performance criteria related to the circular economy and a just transition are added to financial contracts, more money shifts towards real-world impacts.63

---

Chapter 5
CREATING AN ENABLING POLICY ENVIRONMENT FOR CIRCULAR ECONOMY FINANCE AND INVESTMENT

Policy plays an important role in facilitating and fostering the circular economy transition. This concerns both, the transition per se, as well as financing the transition. This section provides a quick overview, including on issues related to de-risking of circular economy finance through public policy and incentivizing investment in PPPs that promote the transition to circular economy. Given the significant restructuring that the circular economy transition will entail, attention also needs to be given to ensuring a just transition.

Actively guiding the circular economy transition

National policies can be instrumental in supporting the financing of the transition to a circular economy by stimulating or demanding resource efficiency through various economic incentives, e.g., through waste reduction targets, extending the responsibility of producers, or an adjusted tax regime. To this are added digital policies, procurement policies, or policies facilitating the types of cooperation which a circular economy requires (see also UNECE paper on Institutional Arrangements for the Circular Economy).

Among the most commonly funding schemes to support green and circular businesses include the following:

- Grants to business start-ups and SMEs innovating in circularity;
- Preferential loans and/or tax incentives to businesses ready to integrate the elements of a circular economy into their organization;
- Guarantee schemes for business investments targeting circularity covered by dedicated State funds, and
- Support schemes to encourage repairing, remanufacturing and fixing including physical spaces.

Such policies to support the financing of the circular transition would need to be well-embedded in the country’s overall circular economy policy strategy. Particular challenges arise from the fact that the circular economy transition requires system change, cutting across multiple different areas and layers of policy making (see also UNECE policy paper on institutional arrangements for the circular economy):

- Different policy areas, including but not limited to environment, economics, trade, finance, innovation, and sectoral (e.g., agriculture, transport) ministries.
• **Different policy layers**, including national, regional and municipal governments which are all key to the implementation of a circular economy, and so are international initiatives.

• **Different stakeholder groups.** The transition to a circular economy requires participation from all parts of society. Knowledge and experience can be leveraged from numerous businesses, research institutes and non-profit organizations as well as civil society groups.

This requires filling many roles with people who will operate as transition brokers\(^{64}\) to engage stakeholder groups during the change process. Among the many questions that need to be addressed are also question about how to foster circular value creation, and how to foster the development of new production methods. Attention would also need to be given to ensuring a just transition, managing the social and job implications, caused by the significant restructuring that the circular economy transition will entail. Box 5 provides initial insights on available mechanisms and sources.

**Box 5 Applying just transition principles to the circular economy transition**

Industrial restructuring typically leads to disruptions of traditional economic systems and can create new challenges for workers, communities, and businesses. By applying the principles of just transition and using policy recommendations from [ILO Guidelines for a just transition towards environmentally sustainable economies and societies for all](https://www.ilo.org/global/advocacy/just-transition-tools-and-strategies/lang--en/index.htm), policymakers and investors can help ensure that the transition is fair and equitable and that it supports the long-term resilience and prosperity of all stakeholders.

The creation of funds for affected sectors and communities is one way to support the economic redevelopment of affected regions. Potential sources for such funds can be (i) tax reforms that promote better environmental practices and (ii) reform of environmentally harmful subsidy schemes for fossil fuels and other non-renewable resources.

For example, in 2020, the EU launched the [Just Transition Mechanism](https://ec.europa.eu/info/business-economy-euro/industry/just-transition-mechanism_en) – to address the challenges in the transition of the fossil fuel value chain. The mechanism provides targeted support to help mobilize at least €100 billion over the period 2021-2027 in the most affected regions. It consists of three sources of financing: (a) Just Transition Fund – which will receive €7.5 billion of fresh EU funds; (b) a dedicated just transition scheme under InvestEU to mobilize up to €45 billion of investments; and (c) a public sector loan facility with the European Investment Bank backed by the EU budget to mobilize between €25 and €30 billion of investments.

Of relevance is also the focus on the [Just Transition Principles](https://www.oecd.org/gov/governance/just-transition-centre-report-just-transition.pdf), developed and adopted by the multilateral development banks in 2021 to help guide international finance to support a just transition.

Circular value creation\(^{65}\) occurs when sustainably produced renewable materials and recycled raw materials are used as alternatives for finite biomass, mineral, metal or fossil fuel resources. The non-financial condition to be met is that the materials have lower environmental impact,

---


Chapter 5
Creating an enabling policy environment for circular economy finance and investment

Circular STEP
Accelerating the Transition Towards a Circular Economy in the UNECE Region: Mobilizing Financing

De-risking of circular economy finance through public policy

Circular business models are frequently considered high-risk. In addition to “de-risking” circular finance, e.g. by combining public and private finance, policymakers need to rethink fiscal policies throughout the whole value chain, from resource extraction to production, consumption and end of life. De-risking private sector investments in these value chains for the transition to a circular economy model is a key objective for creating an enabling policy environment. This subsection presents some important aspects of circular economy policy for de-risking private sector investments.

Legislators, financial regulators and inspectors need to support reducing the loss of value and resources in society by establishing an enabling environment for circular economy. International and national laws and national policies related to EPR are excellent frameworks for policy that integrates circularity. EPR, though not a silver bullet, is a major step in establishing an enabling legal environment for circular economy. In Europe, for example, 100 per cent of packaging must be covered by EPR legislation by 2025.

The general public needs to be involved. Consumer awareness-raising and advocacy campaigns targeting behaviour change towards sustainable lifestyles can be organized by providing access to reliable information on products that promote circular behaviour, e.g. adoption of deposit systems, a shift from single-use to reuse, acceptance of choice editing that eliminates certain product categories and prevention of the creation of problematic single-use items.

---

The enforcement of due diligence and physical audit procedures facilitates transparency in material flows and harmonizes accountancy and valuation procedures for circular projects, materials and resources.\(^\text{70}\) The clarity, reliability and transparency of legal frameworks influences the rate of adoption and the volume of circular economy activity in business, as well as the financing provided by the private sector. Since the circular economy requires extra effort and attention, it is prone to people taking shortcuts. Regulatory framework and policies should focus on sectors that use the most resources and those in which the potential for circularity is high (e.g. construction, food and agriculture, and mining).

Activities related to collecting, recycling and refurbishing products and waste tend to be labour-intensive. Fiscal policies can support the circular economy by shifting the tax burden to waste production and resource use (e.g. a tax on waste or primary resources).\(^\text{71}\) At present, unequal tax treatment of virgin and recycled materials often slows the speed of transition to a circular economy. Taxation often favours virgin materials, while recycled materials suffer double taxation. Harmonizing value added tax regimes and consumption taxes with the intent to transition to a circular economy is an important step policymakers can take to de-risk investment in circular economy. Non-tax fiscal policy instruments (reform of harmful subsidies, such as those for fossil fuel) can play an important role in freeing fiscal space and available financing to be reinvested, for example in the introduction of pro-CE subsidies (e.g. for recycling). This step also contributes to de-risking circular economy practices by creating a level playing field with less sustainable practices.

Digital national strategies\(^\text{72}\) are key to the success of resource recovery. Tracing of resources up and down value chains – e.g. through sector regulations that impose and promote digital and physical tagging to improve the traceability of resources – prevents the loss of value. Data collection is a key issue that policymakers need to tackle early on to allow circular economy business models to develop. Policy should be friendly towards open source and standardized data interfaces between companies that want to exchange material and resources.

A sustainable product policy\(^\text{73}\) – e.g. one that eliminates the use of single-use plastics – can work towards making circular design the norm. Policies with guidelines on design and collection schemes for resource recovery make a level playing field. Often collection schemes are organized as a deposit system, in which consumers get a financial reward for bringing materials (e.g. plastic, cardboard or glass packaging) back to the source.

Public procurement policy\(^\text{74}\) can stimulate circular procurement by creating commercial opportunities for government suppliers. A good example is the tender mechanism for offers in public construction projects. Circularity can be integrated into the selection criteria of suppliers to ensure better alignment of infrastructure and buildings with the 9R framework.


Incentivizing Investment in Public-Private Partnerships

PPPs that incorporate circular economy requirements can leave funders and financers worried about the potential of additional risks that would not normally appear in traditionally procured and financed projects (e.g. projects funded by the respective government treasury). The sponsoring government, maturity of the market, and type of project and respective sector can all influence these perceptions, but governments can still incentivize investment in their PPP projects with circular economy aspirations in a number of ways.

For example, projects can be tendered with circular economy requirements incorporated into tender conditions. Private partners would then need to deliver not only a competitive bid, but one that includes a financing package/institution that accepts the circular economy aspirations and demonstrates a tolerance for circular economy metrics being included in the project.

Blended finance packages may also be authorized in the PPP tender. According to the Addis Ababa Action Agenda on Financing for Development blended finance instruments serve to lower investment-specific risks and incentivize additional private sector finance across key development sectors. PPP projects involving circular economy requirements and blended finance could therefore share risks and rewards fairly; include clear accountability mechanisms across the financial package, all while meeting circular economy transition aspirations. These altered structural approaches can more finely calibrate the risk-reward relationship, and allocate financial risk across different classes of investors with different risk appetites (e.g. subordinated or mezzanine debt, tranched equity funds, aggregated funds of funds, first loss mechanisms, etc.), and thereby can facilitate the financing of a PPP with circular economy requirements.

Other steps can attract more finance to PPPs that contribute to the circular economy transition. These may include governments carefully choosing the sector or project type for their respective PPP; pre-qualifying firms and financiers with circular economy experience; ensuring clarity in overall circular economy policies, law and regulations; creating clear circular economy design, construction, and performance requirements within the project; crafting and incorporating clear circular economy provisions within the project agreements; and/or fostering a pipeline of prior or future projects with circular economy metrics.

For example, the Working Party on Public-Private Partnerships, hosted by UNECE Economic Cooperation and Trade Division, has adopted at its sixth session two guidelines contributed to the cross-cutting UNECE theme of the 69th Commission session in 2021. Namely, first, the Guidelines on Public-Private Partnerships for the Sustainable Development Goals in Waste-to-Energy Projects for Non-Recyclable Waste: Pathways towards a Circular Economy;75 and, second, the Guidelines on Promoting Circular Economy in Public-Private Partnerships for the United Nations Sustainable Development Goals76. The two guidelines provide valuable insights and examples into PPPs for projects contributing to the circular economy.

---

Low- and middle-income countries face a number of challenges when mobilizing finance for the circular economy model. A key challenge is that circular economy business models, e.g. investment in resource efficiency and waste minimization technologies with low market penetration, is seen as financially and technically risky.

Low and middle-income countries, including UNECE’s 17 programme countries, have a number of policy options at hand to overcome some of the barriers in mobilizing financing for the circular economy transition. These include, among others, promoting circular economy finance instruments; making national regulatory and policy framework conducive for circular economy finance; and maximizing synergies with other regional and international policy initiatives and fora.

Promoting circular economy finance instruments:

- **Greater availability of innovative finance tools and products for the circular economy**: Dedicated products for climate action finance and green credit lines aiming to facilitate decarbonization of companies and sectors are both being adopted more widely. This is not yet the case for the circular economy, but the growing number of sustainable finance instruments can be used to support and include circularity as a non-financial criterion. This UNECE paper provides a short overview of several financial instruments that can support the circular transition, including: Green bonds and transition or sustainable bonds; sustainability-linked loans and sustainability-linked bonds; impact investing by the private sector for the SDGs; blended finance; PPPs.

- **Increase risk sharing, e.g. through blended finance**: Blended finance is an important mechanism to remove first-mover risks and enable the uptake of new technologies that have a low market penetration rate. Blended finance can increase the pace of change and systematically remove barriers by reducing risk. It is suited for middle-income countries including those in Central Asia and the Western Balkans, as well as the Republic of Türkiye. Several promising blended-finance examples already exist, e.g. for developing renewable energy, and can potentially be used as models for circular economy investment. Building the capacity of national financial institutions and businesses to engage in blended financing models will be important.

- **Increase awareness and provide technical support for circular economy finance**: One of the key success factors is the development of country-specific or even regional technical advisory support for the many questions that arise when mobilizing financing for the transition to a circular economy. This hands-on support is needed to help prepare and de-risk circular economy projects, as the circular economy business model is often more challenging and multifaceted for operational staff than linear business models. It requires more training, redesigning and more knowledge. Multilateral development institutions, such as the EBRD, the
EIB and the GEF, and development agencies are expanding their technical support programmes for the circular economy. It will also be important to build capacity for circular business model thinking that addresses the entire life cycle of products and the full value chain of companies instead of specific circular economy technologies.

Making national regulatory and policy framework conducive for circular economy finance:

- **Integrate the circular economy in national green policies and road maps:** Some UNECE countries (e.g. Kazakhstan) have already adopted a green growth strategy, which could benefit from incorporating circular economy strategies and international circular policy experience. National policies can be instrumental in the transition to a circular economy, by stimulating or demanding resource efficiency through introducing economic incentives, adjusting tax regimes, setting waste reduction targets, extending the responsibility of producers and facilitating the types of cooperation that a circular economy requires.\(^{77}\)

- **De-risk circular economy investments and incentivize the flow of private capital:** An enabling policy that integrates the circular economy into day-to-day economic life and business is essential to de-risk investment and attract private capital, including through sustainable PPPs. The latter could be a useful mechanism to attract private capital in support of the circular economy transition. The circular economy is relevant to all sectors of the economy, but no integrated policy approach is in place and multisectoral approaches and connections between industries are limited.

- **Align climate and circular economy transition agendas:** Not everything needs to be re-invented, since there is crucial overlap between the circular economy and the climate agendas. Both policy areas address the question of how to modernize our economies around environmentally safe production and consumption methods. Both climate and circular economy policy require policymakers to address the roles of biomass, metals and non-ferrous minerals. The overlap also means that it is productive for countries to work on aligning policies that are currently affecting both the climate and the circular economy agendas – e.g. transparency on fossil fuel subsidies, or unequal taxes on virgin and secondary materials.

Maximizing synergies with other regional and international policy initiatives and for a:

- **Cooperate with key players, such as the EU on the financing of circular economy objectives**: Policy makers may wish to consider engaging in closer cooperation with the EU and taking the European Green Deal and Circular Economy Action Plan into consideration when designing national circular economy policies. Some degree of policy alignment can already be seen. Furthermore, circular economy stakeholders may wish to assess opportunities for circular economy infrastructure under the European Commission’s Economic and Investment Plan and new Global Gateway strategy. Of relevance is also the EU’s Just Transition Mechanism (launched in 2020), which provides targeted support to address the challenges arising from restructuring of the fossil fuel value chain.

- **Benefit from available programs from regional and multilateral development banks**: Multilateral finance institutions such as the programs funded by the EBRD, the EIB, the ADB and the EU have circular finance programs available in selected UNECE programme countries. Circular economy stakeholders may wish to assess opportunities in this regard.

- **Place circular economy finance in the context of the United Nations SDGs and climate financing frameworks**: It is important to integrate circular economy considerations into development finance assessments and identify circular opportunities for instruments such as the Joint SDG Fund and SDG Bonds. So far, however, circular economy solutions are not sufficiently integrated into SDG financing frameworks. The capacity of decision makers in SDG finance has been partly addressed by previous cooperation programmes, but knowledge and investment gaps remain. In this context, attention also has to be given to ensuring a just transition, including in line with recommendations from ILO Guidelines for a just transition towards environmentally sustainable economies and societies for all.

---

78 The circular economy section in the Western Balkans leaders’ declaration from the 2020 Sofia Summit is almost entirely identical to the initiatives proposed in the October 2020 document drafted by the European Commission called “Guidelines for the Implementation of the Green Agenda for the Western Balkans […] – An Economic and Investment Plan for the Western Balkans”: Balkan Forum, “Circular Economy in the Western Balkans region: Waste Management as a Challenge”, Balkan Forum, May 2021. Available at [https://thebalkanforum.org/file/repository/Circular_Economy_in_the_Western_Balkans_region.pdf](https://thebalkanforum.org/file/repository/Circular_Economy_in_the_Western_Balkans_region.pdf).

Circular STEP
Accelerating the Transition Towards a Circular Economy in the UNECE Region:
Mobilizing Financing
Circular STEP
Accelerating the Transition Towards a Circular Economy in the UNECE Region:
Mobilizing Financing
Bibliography


British Royal Society of Chemistry, “Periodic table” 2022. Available at https://www.rsc.org/periodic-table


Circular STEP

Accelerating the Transition Towards a Circular Economy in the UNECE Region: Mobilizing Financing

Convergence Blending Global Finance, “Blending with technical assistance”, February 2019. Available at https://assets.ctfassets.net/4cgqlwde6qy0/3RZCkCllq5y0VYz5kaat/d3154bf1a55836bd3ec26fb07235a913/Technical_Assistance_Brief_Final.pdf.


Dam Removal Europe, “#Dambusters: The start of the riverlution”, World Fish Migration Foundation. Available at https://www.damremoval.eu.


Harvard Graduate School of Education, “Changing for the better”. Available at https://www.gse.harvard.edu/hgse100/story/changing-better.


Legal Information Institute, “Fiduciary duty.” Available at https://www.law.cornell.edu/wex/fiduciary_duty.


Musselwhite, Chris, and Tammie Plouffe, “Four ways to know whether you are ready for change”, Harvard Business Review (2 June 2010).


Norsk Bergindustri, “Bærekraft”. Available at [https://www.norskbergindustri.no/Miljo_og_baerekraft/barekraft/](https://www.norskbergindustri.no/Miljo_og_baerekraft/barekraft/).


Bibliography

Circular STEP
Accelerating the Transition Towards a Circular Economy in the UNECE Region:
Mobilizing Financing


Get in touch

Ms. Elisabeth Türk
Director, Economic Cooperation and Trade Division of UNECE
Email: ece-trade4circularity@un.org

To join the Circular STEP network and receive updates about the circular economy, visit:
unece.org/trade/CircularEconomy
For further information, please contact
Ms. Elisabeth Türk,
Director, Economic Cooperation and Trade Division of UNECE

Palais des Nations
CH - 1211 Geneva 10, Switzerland
E-mail: ece-trade4circularity@un.org
Website: http://www.unece.org