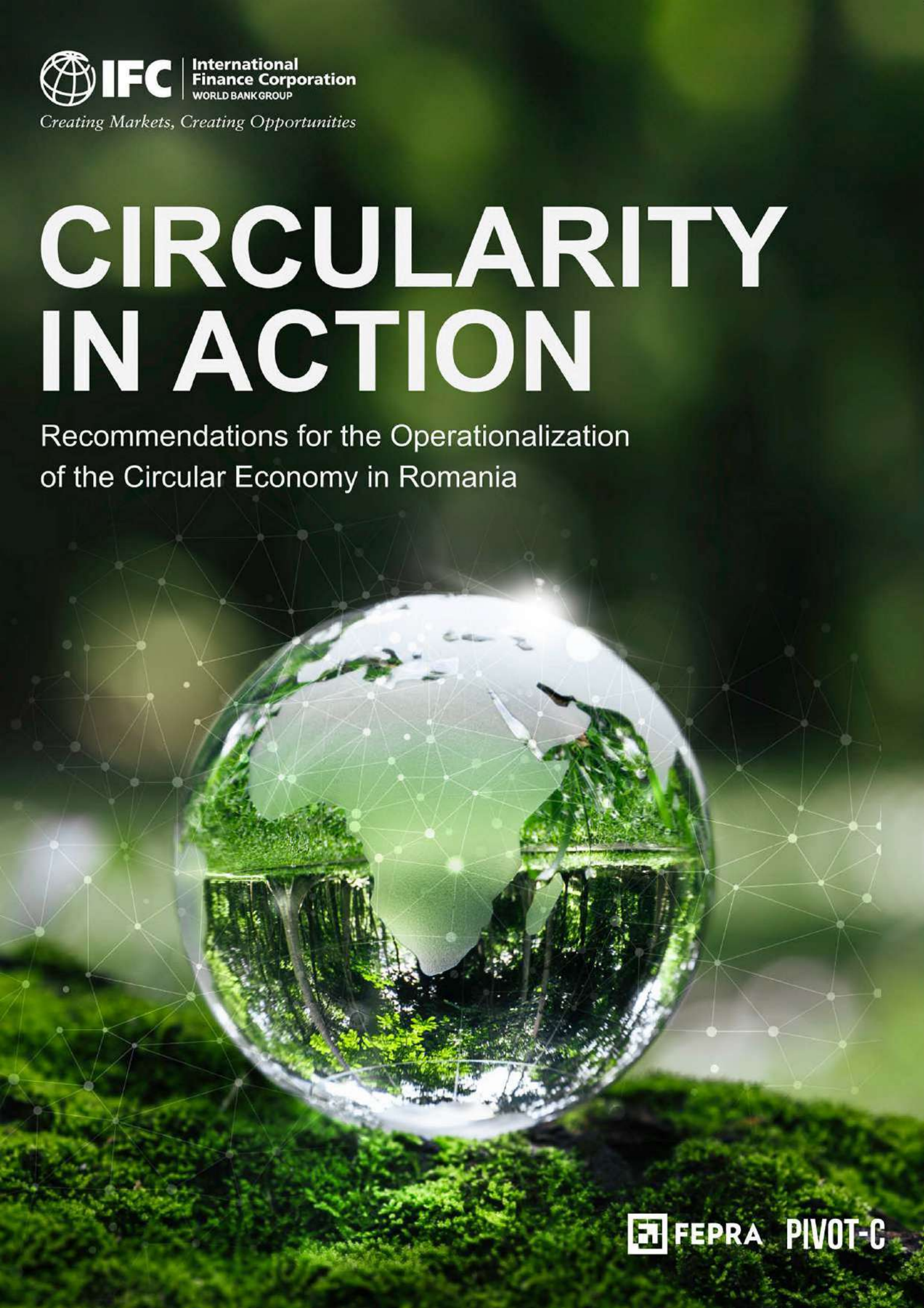
IFC | International Finance Corporation
WORLD BANK GROUP

Creating Markets, Creating Opportunities

CIRCULARITY IN ACTION

Recommendations for the Operationalization of the Circular Economy in Romania



FEPRA PIVOT-C

RATIONALE

As Romania embarks on its ambitious journey towards a sustainable and circular future, the "Circularity in Action" project, a collaborative initiative led by the International Finance Corporation (IFC) in Romania, Fepra Group and PIVOT-C, has culminated in the development of this Report.

It represents a synthesis of extensive consultations and collaborative efforts with diverse stakeholders and it presents a selective set of operationalization proposals out of feed-back from the private sector and IFC experience with specific projects, that are designed as actionable recommendations for the Romanian Government and central authorities, aimed at facilitating the effective implementation of the National Circular Economy Strategy (NCES) and the Circular Economy Action Plan (CEAP) launched in 2023.

These proposals were developed through a comprehensive engagement process with sectorial consultations, workshops and in-depth dialogues with industry professionals, associations, consultants and local authorities. They address critical aspects of the circular economy, including regulatory frameworks, financial incentives, educational initiatives and infrastructure development. The proposals are designed to ensure environmental sustainability, economic viability and social inclusivity.

This Report complements the current CEAP by providing additional, practical and actionable recommendations from the private sector. These proposals are the stepping stones towards a future where circular economy principles are embedded in Romania's socio-economic fabric.

ACKNOWLEDGING CONTRIBUTIONS

As authors of this Report, we extend our heartfelt appreciation to everyone who contributed to this project. This document represents a collaborative effort that reflects a collective commitment to Romania's sustainable and circular future.

We are particularly grateful to the participants at the sectorial consultations and workshops that we organized throughout June to September 2023. Their insights and diverse perspectives, drawn from key sectors such as Consumer Goods, Electrical & Electronic Equipment, Textiles, Packaging, Constructions, Automotive and Agriculture, have been of great importance in shaping our recommendations. The engagement and contributions from industry professionals, associations, consultants and local authorities have enriched our understanding of the challenges and opportunities within Romania's circular economy landscape.

Special thanks are extended to the companies that participated in these discussions. Their significant economic impact and role in providing sustainable livelihoods underscore the importance of their involvement in the transition towards circular practices. Their participation and input have been crucial in ensuring that our recommendations are both practical and impactful.

We acknowledge the International Finance Corporation for their leadership, expertise and commitment throughout this project in order to foster sustainable economic practices in Romania.

Lastly, we extend our gratitude to the Romanian Government for their openness and commitment to working towards the operationalization of the Romanian Circular Economy Action Plan. We look forward to the continued collaboration in our joint endeavour to embed circular economy principles into Romania's socio-economic fabric.

Thank you,
The Authors Team

International Finance Corporation Team

CRISTIAN NACU
Senior Country Officer for Romania
cnacu@ifc.org

OKSANA VARODI
Principal Investment Officer
ovarodi@ifc.org

DANIEL KOCKISCH
Senior Investment Officer
dkockisch@ifc.org

MURAT KARAEGE
Senior Investment Officer
mkaraege@ifc.org

KYRYLO MUKHOMEDZYANOV
Operations Officer
kmukhomedzyanov@ifc.org

VIOLANE KONAR-LEACY
Operations Officer
vkonar@ifc.org

EVELYN SMITH
Operations Officer
esmith7@ifc.org

FELICIA PRICOP
Operations Officer
fpricop@ifc.org

Project Partners

IONUT GEORGESCU
CEO
FEPRA GROUP
ionut.georgescu@fepra.ro

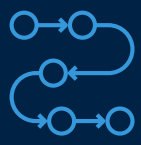
ANDREEA NICOLAE
Managing Partner
PIVOT-C
andreea.nicolae@circularpivot.com

CONTENT

ACRONYMS AND ABBREVIATIONS

CE	Circular Economy
CEAP	Circular Economy Action Plan
CO2	Carbon Dioxide
EPR	Extended Producer Responsibility
ELV	End-of-Life Vehicles
EU	European Union
EV	Electric Vehicle
IFC	International Finance Corporation
loT	Internet of Things
M&E	Monitoring and Evaluation
NCES	National Circular Economy Strategy
NGO	Non-Governmental Organization
PPP	Public-Private Partnership
RWPF	Reuse Water Project Facility
SME	Small and Medium-sized Enterprises

METHODOLOGY



The "Circularity in Action" project was conducted through cross-sectorial roundtable consultations, one-on-one interviews (June-August, 2023) and a workshop gathering key industry leaders in panel discussions (September, 2023). It aimed to uncover the realities of implementing circular economy practices in various sectors including consumer goods, electrical & electronic equipment, textiles, packaging, constructions, automotive and agriculture, thus ensuring a comprehensive and multi-sectoral understanding.

Participants included over 70 industry professionals, associations and local authorities, representing a broad spectrum of the Romanian economy. Their collective turnover and the net income figures generated by their organizations, averaging in 2021 at EUR 166 million and EUR 360 million respectively, along with an average workforce of 600 individuals per company, highlighted their economic influence and role in driving circular practices.

During the discussions, we identified a various range of maturity levels in circular economy integration, from exploratory to strategic implementation. This diversity underlined the dynamic adoption landscape in Romania, offering potential for cross-sectoral learning and advancement in circular practices. Discussions emphasized waste reduction, recycling, resource efficiency and the evolving interest in circular supply chain management and sustainable design. A notable expectation from these consultations was the proactive role of the public system in circular economy advancement, with a call for leadership in policy and framework development. Collaboration emerged as a central theme, emphasizing the need for joint efforts among government, businesses, and communities for impactful outcomes. Transparency and efficiency were also highlighted as critical for the effective implementation of circular initiatives.

A critical conclusion from these consultations is the necessity of ongoing and collaborative public-private dialogue. The insights and expectations gathered are crucial for shaping a robust and actionable circular economy agenda in Romania.

OVERVIEW OF RECOMMENDATIONS

Sector-Specific Circular Economy Roadmaps

Recommendation: Develop sector-specific roadmaps for Romania's transition to a circular economy
Key Actions: Engage stakeholders, align with EU standards, foster inclusivity.
Pilot Projects: Recycling Facilities, Eco-Industrial Parks
IFC Case Study: Belgrade Waste Management PPP

Financial Instruments

Recommendation: Create financial instruments to support circular economy initiatives.
Key Actions: Develop grants, loans, tax incentives and a dedicated fund.
Pilot Projects: Waste-to-Energy and Water Efficiency Projects
IFC Case Study: Blue Financing for Banca Transilvania
Blue and Green Financing for Yapı Kredi Leasing

Capacity Building

Recommendation: Build capacity across sectors for a circular economy transition.
Key Actions: Address challenges, consumer education, align with national objectives.
Pilot Projects: National Centre of Excellence on CE, CE in educational curricula
IFC Case Study: Assess water reuse opportunities in the Campinas region of Brazil

Technology Transfer

Recommendation: Facilitate transfer of circular economy technologies to Romania.
Key Actions: Establish partnerships, adapt technologies to local context.
Pilot Projects: Volvo's Electric Vehicle Production, Apple's Recycling Program.
IFC Case Study: Elemental Holding's Expansion in Sustainable Waste Management

Policy Harmonization

Recommendation: Harmonize policies for a conducive circular economy environment.
Key Actions: Align with EU directives, engage stakeholders.
Pilot Projects: Extended Producer Responsibility (EPR) Programs in various countries.

OVERVIEW OF RECOMMENDATIONS

Public-Private Partnerships (PPPs)

Recommendation: Promote PPPs to drive circular economy in Romania.
Key Actions: Develop a supportive framework, encourage fair competition.
Pilot Projects: Sustainable Urban Development, Smart Waste Management, Renewable Energy, Green Public Transportation.
IFC Case Study: New Cairo Wastewater PPP

Awareness Campaigns

Recommendation: Conduct campaigns to raise public awareness of circular economy.
Key Actions: Develop campaign content, utilize multiple channels, collaborate with influencers.
Pilot Projects: National Circular Economy Week, Circular Economy School Program, Community Recycling Initiatives.

Innovation Hubs

Recommendation: Establish innovation hubs for circular economy R&D.
Key Actions: Identify locations, allocate resources, foster collaboration.
Pilot Projects: Eco-Design Workshops, Sustainable Product Development Challenges.

Monitoring and Evaluation Framework

Recommendation: Develop an M&E framework for circular economy initiatives.
Key Actions: Framework development, data collection, stakeholder engagement.
Pilot Projects: Material Recovery Facilities, Circular Procurement.

International Cooperation

Recommendation: Strengthen international cooperation for circular economy.
Key Actions: Enhance global partnerships, attract foreign investments.
IFC Case Studies: IFC & The City of Zagreb
IFC & Amundi's $2B Bond Strategy

For a comprehensive set of policy recommendations please consult the 2023 World Bank Report **Diagnostic Analysis for Circular Economy Interventions in Romania**.

SECTOR-SPECIFIC CIRCULAR ECONOMY ROADMAPS

This section outlines key operationalization proposals designed to turn strategy into action, ensuring Romania's transition to a circular economy is both effective and sustainable. These proposals are crafted to align with the unique challenges and opportunities within the Romanian context, adhering to EU standards and directives.

Proposal Overview

Develop comprehensive roadmaps for each of the focal sectors to transition towards a circular economy. These roadmaps will serve as blueprints, guiding sector-specific adaptations and innovations in line with circular principles. The initiation of these roadmaps will be through targeted pilot projects, which will not only test and refine the strategies but also create synergies and learning opportunities across sectors.

Key Actions

- Start with sector-specific pilot projects to test the feasibility and impact of circular economy strategies. These projects will serve as practical examples and learning grounds, fostering innovation and collaboration.
- Reassess existing strategies through the perspective of circular economy principles, identifying areas for improvement and integration.
- Collaborate with government, industry and civil society stakeholders to define milestones, assign responsibilities and allocate budgets for each priority sector
- Ensure alignment of strategies and pilot projects with EU circular economy standards and directives, tailored to Romania's specific political, administrative and business contexts.
- Use public consultations to integrate diverse perspectives into the roadmap development process, particularly in the planning and scaling of pilot projects.

PILOT PROJECT IDEAS

Recycling Facilities

Description: Establish advanced recycling facilities to process waste materials from each sector, embodying circular economy principles of waste reduction and material recovery.

Benefits: These facilities will significantly reduce landfill waste, recover valuable materials for reuse and create green jobs, contributing to a sustainable economy.

Economic and Romanian Impact: Stimulate local economies through job creation and technology investment, improving Romania's waste management practices in line with EU standards.

Best practices from other countries

Austria: Recycling Park - A comprehensive facility for sorting and processing various materials.

Info

Hungary: Eco-Park - An industrial park with a focus on recycling and environmental technologies.

Info

Poland:
Elemental Holding - Specializes in recycling and extracting valuable materials from electronic waste and spent automotive catalysts.
(Case Study presented at page 19)

Info

Eco-Industrial Parks

Description: Develop eco-industrial parks that promote resource efficiency and circular economy practices, fostering symbiotic relationships among co-located firms.

Benefits: Shared resources among businesses will reduce operational costs, stimulate innovation and minimize environmental footprints.

Economic and Romanian Impact: Attract both foreign and domestic investment, fostering SME growth and demonstrating the viability of circular economy practices in Romania.

Best practices from other countries

Denmark: Kalundborg Eco-Industrial Park - Known for its symbiotic network of recycling and reusing industrial waste.

Info

Germany: Ludwigshafen Verbund Site - An industrial complex practicing resource and energy efficiency.

Info

Netherlands: Cradle to Cradle Park - Based on Cradle-to-Cradle design principles, focusing on sustainable industrial practices.

Info

IFC Case Study: Creating circular economy roadmaps

Project Belgrade Waste Management Public-Private Partnership Info

Location Belgrade, Serbia

Partners International Finance Corporation (IFC), City of Belgrade

Overview

This project represents a significant public-private partnership between the City of Belgrade and IFC to improve waste management systems and promote circular economy practices in Serbia's capital. The initiative aims to modernize waste management infrastructure and processes, enhancing environmental sustainability and public health.
The waste-to-energy facility started processing waste in February 2023, with full operations expected by early 2024.

It has the capacity to convert up to 340,000 tons of waste into renewable heat and electricity

It can generate up to 30 megawatts of electricity, enough to power approximately 30,000 Belgrade households and up to 56 MW of thermal energy, providing 60,000 households with heat in the winter— a significant contribution to Serbia’s energy grid.

The newly established waste recycling plant recycles about 200,000 tons of construction and demolition waste per year.

This facility will convert construction and demolition waste into recycled construction materials.

Together these project components are expected to reduce Belgrade’s greenhouse gas emissions by 210,000 tons of CO2 equivalent per year.

Key Features

Public-Private Collaboration

A strategic partnership leveraging the strengths of both the public sector (City of Belgrade) and the private sector expertise (IFC).

Infrastructure Development

Construction and modernization of waste management facilities, including recycling and waste-to-energy plants.

Environmental & Health Benefits

Focus on reducing landfill waste, lowering greenhouse gas emissions and improving urban environmental health standards.

Community Engagement & Education

Initiatives to raise public awareness about waste reduction, recycling and sustainable practices.

Relevance of the IFC's case study

This is a prime example of effective PPPs in waste management, crucial for circular economy projects.

The project includes community education components, aligning with capacity-building efforts in sustainable waste management.

Offers a model for tracking progress and impact in waste management and circular economy initiatives.

FINANCIAL INSTRUMENTS

In the quest to transition Romania towards sustainable circularity practices, public funding can stimulate the development of new circular business models, innovative technologies and strategic partnerships. Financial and economic instruments provide important market signals, which can influence the behavior of producers and consumers, help decrease the cost of capital for innovative circular investments and thus help overcome financial and information barriers.

Proposal Overview

This specific proposal outlines the strategies and pilot projects aimed at fostering a financially conducive environment for circular economy practices in Romania. These actions are designed to lower investment barriers, encourage private sector participation and facilitate the adoption of circular economy models, ultimately leading to sustainable economic growth and environmental stewardship.

Key Actions

- Engage with the Romanian business community to understand their financial needs in transitioning to a circular economy.
- Design and implement incentives packages – including both subsidy and tax incentives - for stimulating accelerated private sector engagement in circular economy projects, based on EU and international best practices.
- Consider creating financial instruments that optimize leverage for available concessional funds, including from the EU programs and leveraging available EU founds where possible.
- Streamline and simplify application and approval processes for financial support, encouraging broader uptake among SMEs.

PILOT PROJECT IDEAS

Waste-to-Energy Projects:

Objectives: Convert waste materials into energy, reducing landfill use and promoting renewable energy sources.

Benefits: Provide an alternative energy source, reduce greenhouse gas emissions and decrease reliance on non-renewable energy.

Economic and Romanian Impact: Generate energy cost savings and stimulate the renewable energy sector.

Romanian Impact: Enhance national energy security and align with EU renewable energy targets.

International Examples:

Denmark: Amager Bakke, a waste-to-energy plant that combines waste management and recreational facilities, used grants and subsidies from the European Union's LIFE program, equity investments from private investors nd pay-as-you-go (PAYGO) financing.

Info

Austria: Spittelau Waste Incineration Plant, a waste-to-energy plant that is also an architectural landmark is based on a public-private partnership (PPP) between the City of Vienna and a consortium of private companies.

Info

Serbia: Belgrade Waste-to-Energy plant, a state-of-the-art facility that converts municipal waste into electricity and heat, financed by the IFC's Infrastructure Department alongside the European Bank for Reconstruction and Development and the Development Bank of Austria.

Info

Water Efficiency Projects:

Objective: Improve water efficiency in industrial processes, promoting water reuse and reducing pollution.

Benefits: Lower water consumption and treatment and costs and improve water quality.

Economic Impact: Save costs on water resources and stimulate the water-saving technology market.

Romanian Impact: Address water scarcity issues and contribute to national water management objectives.

International Examples:

Germany: The Berlin Water Cycle Concept used a combination of public and private investment, including green bonds, to fund the development of a sustainable and efficient water management system.

Info

Spain: The Smart Water Management in Valladolid used public-private partnerships and grants to finance the deployment of smart water management technologies, such as real-time monitoring and leak detection systems.

Info

Spain: A Water-Saving Program in Zaragoza used water rate rebates and other financial incentives to encourage businesses and households to reduce water consumption.

Info

IFC Case Study: Financial instruments for circular initiatives

Project IFC Blue Financing for Banca Transilvania Info

Location Romania

Partners International Finance Corporation (IFC), Banca Transilvania

Overview

A pioneering financial initiative providing a €100 million loan to support blue economy projects in Romania, focusing on sustainable water resource use.

Banca Transilvania plans to launch a blue financing product for loans for micro, small and medium-sized companies.

The investment will be used to finance water efficiency projects, sustainable tourism, efficient irrigation in agriculture, projects to prevent plastic pollution which will lead to water savings, improvement of water quality, prevention of pollution of ecosystem and water resources.

Key Features

- Significant investment in the water and wastewater sector.
- Introduction of a blue financing product for SMEs.
- Emphasis on sustainability and environmental impact.
- Relevance to Operationalization Proposals:
- Demonstrates a successful model of financial support for circular economy initiatives.
- Aligns with EU standards and contributes to sustainable economic activities.

Project IFC Blue and Green Financing for Yapı Kredi Leasing Info

Location Istanbul, Türkiye

Partners International Finance Corporation (IFC), Yapı Kredi Leasing

Overview

A groundbreaking blue and green loan initiative to enhance access to climate finance for SMEs in Türkiye, focusing on climate mitigation and adaptation.

Yapı Kredi Leasing plan to use half of the loan to finance blue projects, including investments in clean water, water efficiency and wastewater treatment, as well as marine and ocean economy activities and water pollution prevention.

The other half will go towards green projects, such as energy-efficient equipment, e-vehicles & charging infrastructure, energy efficiency upgrades in buildings and facilities and renewable energy solutions.

The investment will help the bank achieve its substantial climate goals and contribute to the country's climate goals.

Key Features

- $120 million investment for blue and green leasing loans.
- Dual focus on blue and green projects, including clean water and energy-efficient solutions.
- Commitment to Türkiye's climate goals and the Paris Agreement.

Relevance of the IFC's case study

It offers a model for financing circular economy projects through innovative blue and green loans.

Supports SMEs in transitioning to sustainable practices, crucial for the development of a circular economy.

CAPACITY BUILDING

This recommendation addresses the critical need for capacity building in Romania's journey towards a circular economy. Recognizing the cultural and administrative challenges, it focuses on creating accessible programs for a diverse range of stakeholders, ensuring that the transition is inclusive and effective.

Proposal Overview

The proposal aims to build capacity across various sectors and societal levels, focusing on education, training and awareness-raising to embed circular economy principles into the Romanian socio-economic fabric.

Key Actions

- Develop and implement a national strategy to address cultural and administrative barriers to capacity building for a circular economy.
- Work with businesses to develop and promote sustainable products and services.
- Foster informed consumer choices and stimulate demand for sustainable products.
- Develop capacity-building programs that are aligned with Romania's national circular economy objectives and EU directives.

PILOT PROJECT IDEAS

National Centre of Excellence on CE:
Establish a national centre of excellence on the circular economy to provide support and resources to stakeholders across sectors and societal levels.

CE Stakeholders Connection Platform:
Create a platform to connect and share best practices among stakeholders on capacity building for a circular economy.

CE Education in Schools:
Partner with schools and universities to integrate circular economy education into curricula.

International Examples:

Netherlands: The Circular Economy Centre is a one-stop shop for information and resources on the circular economy. It offers a variety of programs and services to support businesses, governments and civil society organizations in transitioning to a circular economy.

Info Info

Global NGO: The Ellen MacArthur Foundation's Circular Design Challenge is a global competition to develop and implement innovative circular economy solutions. The challenge has helped to raise awareness of the circular economy and inspire businesses to design for circularity.

Info

EU Commission: The Circular Economy Package includes several measures to support capacity building for a circular economy. These measures include funding for training programs, pilot projects and other initiatives.

Info

IFC Case Study: Building integrated capacities for circular economy projects

Project Campinas Rewater Info

Location Campinas, São Paulo State, Brazil

Partners International Finance Corporation (IFC), BRK Ambiental, Sanasa, Sabesp

Overview

The Campinas Rewater project is a pioneering initiative in Brazil's water sector, focusing on water reuse for industrial purposes in the Campinas region, a high water-stress area.

This project was conceived in response to the severe drought affecting the region between 2014 and 2016, which had significant impacts on people's lives and the local economy.

The project's core objective was to analyse the feasibility of implementing a Reclaimed Water Production Facility (RWPF) to increase water availability and mitigate drought risks.

Key milestones of the project included:

- A diagnostic and scoping study to evaluate all relevant aspects of implementing an RWPF in Campinas.
- Collaboration with three major water companies: BRK Ambiental, Sanasa and Sabesp.
- Analysis of the water-use demands of major industries in the region and potential supply sources from sewage treatment plants.

Key Features

- The project involved a joint effort of private and public sector entities, with the three water companies expressing interest in developing a water reuse project.
- Comprehensive study to identify water-using industries, assess regulatory challenges, evaluate potential locations for RWPF and estimate costs for implementation.
- The project aligns with IFC's strategy of promoting efficiency and improved services in the water sector, focusing on water reuse as a circular economy concept.

Relevance of the IFC's case study

It represents an innovative approach to managing water resources in a region characterized by high water stress.

The project offers insights into the feasibility and potential scalability of water reuse projects, serving as a model for other regions facing similar water stress challenges.

The project showcases how collaboration between public and private entities can drive impactful environmental projects, crucial for the development of circular economy practices in urban settings.

It highlights the potential for enhancing water security, supporting local economies and contributing to environmental sustainability through innovative water management solutions.

TECHNOLOGY TRANSFER

This proposal focuses on facilitating the transfer of circular economy technologies from developed countries to Romania. It emphasizes establishing partnerships and adapting technologies to fit the Romanian context, drawing insights from international best practices and successful case studies.

Proposal Overview

The proposal aims to harness cutting-edge circular economy technologies through international collaboration, ensuring these technologies are effectively integrated into Romania's various sectors.

Key Actions

- Establish partnerships with international organizations, foreign governments and multinational corporations.
- Identify and adapt technologies to meet the specific needs of Romania's focal sectors.
- Tailor technology choices to fit the Romanian business environment and regulatory framework
- Ensure technologies are relevant and practical for local application.

PILOT PROJECT IDEAS

Sweden: Volvo's Electric Vehicle Production

Info

Problem: Transportation's significant contribution to climate change.

Solution: Commitment to produce only electric or hybrid vehicles by 2025.

Benefits: Reduced environmental impact, meeting EV demand, attracting new customers.

Risks and Mitigation: High cost of EV production, competition; partnering with companies for battery development, investing in new production lines.

Apple's Recycling Program (USA)

Info

Problem: The environmental impact of electronic waste.

Solution: Recycling and trade-in programs for old devices.

Benefits: Reduction in e-waste, improved brand image, new customer attraction.

Risks and Mitigation: Operational costs, customer participation; partnering with recycling companies, financial incentives for trade-ins.

IFC Case Study: Supporting transfer of technological innovation

Project Elemental Holding's Expansion in Sustainable Waste Management and Circular Economy Practices — Info

Location Poland

Partners International Finance Corporation (IFC), Elemental Holding

Overview

To support efficient waste disposal, cut greenhouse gas emissions and promote the move towards a circular economy in Poland, IFC has partnered with Elemental Holding, a leading global urban mining and recycling conglomerate.

IFC is investing $90 million in convertible preferred shares in Elemental to support its global growth strategy, which includes constructing new downstream metals recycling and metals refining facilities in Poland, accelerating its global acquisition strategy in new regions and securing funding for general corporate purposes.

IFC's investment will help Elemental ramp up its ability to take various waste streams – electronic waste, spent automotive catalysts and lithium-ion batteries from electric vehicles – and extract valuable metals and materials from them for reuse.

This increases the sustainable supply of rare metals and recovery and reuse of valuable raw materials, improving the resilience of the supply chains for crucial industries and, in a context of limited global resources, addresses key environmental and climate challenges.

Key Features

- IFC's investment in Elemental's global growth and facility construction.
- Advanced technologies for recycling and metal extraction.
- Sustainable energy use with solar panels and electricity storage systems.
- Impact on improving waste management practices in Poland.

Relevance of the IFC's case study

Model for technology transfer in waste management sectors.

Alignment with EU standards, providing a framework for policy harmonization.

Example of successful public-private partnerships.

POLICY HARMONIZATION

One essential private sector recommendation for the Romanian Government is to harmonize policies and regulations to foster a conducive environment for circular economy practices in Romania. It emphasizes aligning national policies with EU directives and engaging stakeholders to identify and address policy barriers.

Proposal Overview

The goal is to create a consistent and supportive policy framework across various levels of government, facilitating the transition to a circular economy in Romania.

Key Actions

- Ensure Romanian policies are coordinated with EU circular economy directives.
- Conduct consultations to understand policy barriers and opportunities.
- Address inconsistencies across various government levels for a unified approach.
- Consider the political and administrative context in Romania for effective policy implementation.

PILOT PROJECT IDEAS

Extended Producer Responsibility (EPR) Programs:

Objective: Implement EPR programs making producers responsible for their products' post-consumer phase.

Benefits: Reduced waste, stimulated recycled materials market, eco-design promotion.

Economic Impact: Enhanced competitiveness of sustainable products, innovation stimulation.

Romanian Impact: Improved waste management, alignment with EU EPR directives.

International Examples:

France's: established EPR program for textiles with producer contributions to recycling costs.

Info

The **EU's** End-of-Life Vehicles Directive (ELV) imposes responsibility on vehicle manufacturers for end-of-life vehicle collection and de-pollution.

Info

Italy's Food Waste Law encourages food donation and waste reduction, offering tax reductions based on donated food weight. It also simplifies the donation process, promoting food redistribution.

Info

Netherlands' Waste Sector Target Agreement aims to reduce construction and demolition waste, promoting recycling and reuse.

Info

Sweden's EPR framework covering various sectors, shifts waste management responsibility to producers.

Info

PUBLIC-PRIVATE PARTNERSHIPS (PPPs)

We recommend that a special emphasis is put on the promotion of Public-Private Partnerships (PPPs) as a key mechanism to drive the circular economy in Romania. This recommendation focuses on fostering collaboration between the Romanian government and the private sector for successful circular economy projects.

Proposal Overview

The aim is to establish a robust legal and regulatory framework that supports PPPs, ensuring transparency, accountability and fair competition in circular economy initiatives.

Key Actions

- Create legal and regulatory structures tailored to support and facilitate PPPs in Romania.
- Ensure these frameworks promote transparency and accountability in all PPP engagements.
- Develop policies that encourage fair competition, allowing both large corporations and SMEs to participate in PPPs.
- Engage with various stakeholders, including government agencies, private sector entities and civil society, to ensure balanced and inclusive PPP models.

PILOT PROJECT IDEAS

Sustainable Urban Development Projects:

Objective: Develop mixed-use urban areas combining residential, commercial and green spaces, with a focus on sustainable construction and energy efficiency.

Benefits: Promote sustainable living, reduce carbon footprint and enhance quality of life in urban areas.

Smart Waste Management Systems:

Objective: Implement smart waste management solutions, such as sensor-equipped waste bins and efficient waste collection routes, using IoT technology.

Benefits Optimize waste collection, reduce operational costs and improve recycling rates.

Renewable Energy Initiatives:

Objective: Establish renewable energy projects like solar farms or wind turbines through PPPs, contributing to the national grid or local communities.

Benefits: Increase renewable energy capacity, reduce dependence on fossil fuels and create sustainable energy jobs.

Green Public Transportation Systems:

Objective: Develop eco-friendly public transportation solutions, such as electric buses or bike-sharing programs, in partnership with private companies.

Benefits: Reduce urban pollution, promote sustainable transit options and improve public health.

IFC Case Study: Supporting Public-Private Partnerships

Project New Cairo Wastewater Treatment Plant Info

Location New Cairo, Egypt

Partners Egyptian Government, Orascom Construction Industries (Egypt), Aqualia (Spain)

Overview

The New Cairo Wastewater Treatment project, initiated in 2009, is Egypt's first public-private partnership (PPP) in the wastewater sector.

This landmark project was developed to improve sanitation services in New Cairo, a satellite city of Greater Cairo, to accommodate a projected population growth from 550,000 to approximately 3 million over 20 years.

The project aimed to mobilize private investments totaling $150–200 million.

IFC served as the lead advisor for structuring and implementing the PPP. This involved:

- Conducting technical, financial and legal due diligence.
- Marketing the project and prequalifying potential investors.
- Managing the international competitive tendering process.
- Overseeing the financial closure process.

Key Features

- A partnership between the Egyptian government and a consortium led by Egypt's Orascom Construction Industries and Spain's Aqualia.
- The plant has a capacity of 250,000 m³/day, designed to meet the growing sanitation needs of New Cairo.
- The project was structured as a 20-year PPP concession with:
  - Design, finance, construction, operation and maintenance of the plant by the private partner.
  - A Sewage Treatment Charge paid by the government, including fixed and variable portions.
  - The New Urban Communities Authority, underpinned by the Ministry of Finance, being responsible for electricity costs.
- Ten applications were received and seven bidders were prequalified.
- It was the first successful transaction under the Egyptian Government's PPP program, setting a precedent for future projects.
- $150–200 million in private investment mobilized.
- Improved infrastructure and service quality for approximately three million people in New Cairo.
- Regional and international investors attracted to Egypt's PPP market.

Relevance of the IFC’s case study

The project showcases how PPPs can be successfully implemented in essential infrastructure projects.

It highlights the mobilization of private sector finance and expertise in public infrastructure development.

The project plays a crucial role in supporting the growth and sustainability of a rapidly expanding urban area.

It serves as a model for replicating similar PPP structures in other infrastructure projects.

AWARENESS CAMPAIGNS

In Romania's journey towards a circular economy, raising public awareness is crucial. Awareness campaigns play a pivotal role in changing cultural attitudes and behaviours that may hinder the adoption of circular economy practices. This proposal for the central authorities focuses on conducting nationwide campaigns to educate the public about the benefits of a circular economy, drawing on successful examples from Romania and abroad.

Proposal Overview

The proposal involves a series of targeted awareness campaigns aimed at different segments of the Romanian population. These campaigns will highlight the importance and benefits of circular economy practices, using a mix of traditional and digital media platforms for maximum reach and impact.

Key Actions

- Create engaging and informative content tailored to various demographic groups, focusing on the practical benefits and how individuals can contribute to a circular economy.
- Employ a mix of media channels, including social media, television, radio and print media, to ensure widespread dissemination of campaign messages.
- Partner with popular influencers, community leaders and educators to amplify the campaign's reach and credibility.
- Organize workshops, seminars and interactive events in schools, universities and community centres to engage directly with the public.

PILOT PROJECT IDEAS

National Circular Economy Week:

A week-long event featuring workshops, exhibitions and talks promoting circular economy concepts and practices.

Circular Economy School Program:

Integrate circular economy topics into school curricula and organize school competitions on sustainability projects.

Community Recycling Initiatives:

Launch community-based programs to educate and engage citizens in recycling and waste reduction activities.

Sustainable Lifestyle Challenges:

Conduct online challenges encouraging individuals and families to adopt sustainable practices in their daily lives.

Business Sustainability Awards:

Recognize and award Romanian businesses that successfully implement circular economy practices.

Example Campaigns for Inspiration:

UK: Love Food Hate Waste: Educates consumers on how to reduce food waste and compost food scraps.

Info

Sweden: Give H2OPE to Others: Educated consumers on the importance of water conservation and water reuse.

Info

EU: Eco-Schools Program: Educates students and teachers about environmental issues and how to reduce waste and save resources.

Info

INNOVATION HUBS

To accelerate Romania's transition to a circular economy, one recommended direction is establishing innovation hubs dedicated to research and development in circular economy technologies. These hubs will serve as collaborative spaces, bringing together academia, industry and government to foster innovation and practical solutions.

Proposal Overview

The proposal involves setting up a network of innovation hubs across Romania. These hubs will focus on developing innovative technologies, processes and business models that align with circular economy principles. They will be well-resourced and designed to be accessible to a diverse range of stakeholders.

Key Actions

- Identify strategic locations for the hubs, ensuring they are accessible to key stakeholders, including universities, businesses and research institutions.
- Equip the hubs with state-of-the-art facilities, research tools and access to funding opportunities.
- Foster an environment of collaboration and knowledge-sharing, connecting experts, entrepreneurs and researchers.
- Partner with universities and technical schools to integrate practical research and development opportunities into academic programs.
- Prioritize research in eco-design and sustainable technologies, aligning with EU directives and global best practices.

PILOT PROJECT IDEAS

Eco-Design Workshops:

Organize workshops and seminars on eco-design principles and practices.

Sustainable Product Development Challenges:

Host competitions and challenges for developing sustainable products, encouraging innovation in eco-conscious design.

Circular Economy Tech Accelerator:

Create an accelerator program within the hubs to support startups focused on circular economy technologies.

Research Grants for Circular Economy Projects:

Offer research grants and funding opportunities for projects that advance circular economy principles.

Collaborative Projects with Industry:

Facilitate joint projects between the hubs and industry partners to develop and test new circular economy solutions.

International examples:

Germany: The German Federal Ministry of Education and Research (BMBF) hosts the annual Circular Economy Award, which recognizes and rewards businesses, startups and researchers for their contributions to the circular economy.

Info

MONITORING AND EVALUATION FRAMEWORK

Developing a comprehensive monitoring and evaluation (M&E) framework is crucial for assessing the effectiveness of circular economy initiatives in Romania. This framework will enable tracking progress, identifying areas for improvement and ensuring that the objectives of circular economy projects are met.

Proposal Overview

The proposal involves creating a robust M&E framework that encompasses various circular economy initiatives, including material recovery facilities and circular procurement.
This framework will provide clear metrics and indicators for success, enabling consistent assessment and reporting.

Key Actions

- Design an M&E framework with clear objectives, indicators and targets for each circular economy initiative.
- Implement systems for data collection and analysis to monitor progress against set targets.
- Involve stakeholders in the M&E process to ensure a comprehensive understanding of impacts and outcomes.
- Establish a schedule for regular reporting on progress, challenges and achievements.
- Use M&E findings to inform and adjust strategies and actions for continuous improvement.

PILOT PROJECT IDEAS

Material Recovery Facilities:

Incorporate specific metrics for material recovery facilities, such as the volume of materials recovered, recycling rates and environmental impact reductions.

Circular Procurement:

Develop indicators for circular procurement practices, including the percentage of circular products procured, cost savings and reductions in waste generation.

International examples:

Finland: The Finnish government has set a goal of achieving 100% circular procurement by 2030. To support this goal, the government has developed several circular procurement indicators, including the percentage of circular products procured, cost savings and reductions in waste generation. The government also provides training and support to public sector organizations to help them implement circular procurement practices.

Info

INTERNATIONAL COOPERATION

This recommendation focuses on strengthening international cooperation to enhance Romania's circular economy initiatives. It highlights the importance of learning from global best practices, attracting foreign investments and building partnerships to support Romania's circular economy projects.

Proposal Overview

The proposal aims to leverage international cooperation to bring global insights, investments and partnerships into Romania's circular economy sphere, ensuring the country benefits from worldwide expertise and resources.

Key Actions

- Develop relationships with international organizations, foreign governments and multinational corporations experienced in circular economy practices.
- Showcase Romania as an attractive destination for investments in circular economy projects.
- Create strategies to highlight Romania's commitment to sustainable practices and potential for growth in this sector.
- Align national policies with international circular economy standards to facilitate cooperation and investment.
- Harmonize regulations and standards to integrate international practices and technologies seamlessly.

PILOT PROJECT IDEAS

BMW's i3 Urban Electric Car (Germany):

Info

Problem: The environmental impact of traditional vehicles.

Solution: Production of sustainable electric cars.

Benefits: Reduced carbon footprint, alignment with renewable energy goals.

Risks and Mitigation: High production costs; partnerships for sustainable material sourcing and renewable energy use.

Eco-Emballages (France):

Info

Problem: The environmental impact of packaging waste.

Solution: Promoting recycling and eco-design of packaging.

Benefits: Reduction in packaging waste, promotion of sustainable packaging.

Risks and Mitigation: Reduction in packaging waste, promotion of sustainable packaging.

IFC Case Study: Experience with Green Bonds

Project IFC and Amundi's $2B Bond Strategy Info

Location Global (Emerging Markets)

Partners International Finance Corporation (IFC), Amundi

Overview

A strategy to mobilize private investment in sustainable bonds, addressing climate change and gender issues.

The Fund is an emerging market green bond fund that finances projects promoting circular economy principles.

Key Features

- Management of sustainable bond issuances, focusing on climate change and inclusive recovery.
- The fund invests in a variety of circular economy projects, including waste management, renewable energy and sustainable infrastructure.

Relevance of the IFC's case study

This project is an example of innovative financing for circular economy initiatives, offering a model adaptable for Romania.

Project Boosting Climate Resilience in Zagreb, Croatia Info

Location Zagreb, Croatia

Partners International Finance Corporation (IFC), Zagreb Holding, The City of Zagreb

Overview

IFC has stepped in as an anchor investor in the first municipal utility sustainability-linked bond in central and southern Europe, with a subscription of EUR 72.5 million in the EUR 305 million issuance.

IFC investment will free up capital to allow the City of Zagreb to make critical investments in infrastructure that will improve resource efficiency and climate resilience.

The bond issuer is Zagreb Holding, a municipal holding company solely owned by the city of Zagreb. The innovative bond structure will incentivize Zagreb Holding to make waste management and renewable energy investments.

These investments are expected to avoid 132,000 tons of landfill waste by 2027 and increase Zagreb Holding's renewable energy consumption from 50% to 70% of its total energy consumption between 2023 and 2028.

Key Features

- Bond issuance for waste management and renewable energy investments, supporting Croatia's climate adaptation strategy.

Relevance of the IFC's case study

Model for financing circular economy projects, emphasizing resource efficiency and climate resilience.

CONCLUSIONS

Several key conclusions emerge, underlining the transformative potential of a circular economy for Romania.

Integrated Approach

- Our findings underscore the necessity of an **integrated approach** that encompasses **policy reform, technological innovation, financial instruments** and **capacity building**.
- **The private sector's role is pivotal**, offering practical solutions and strategies that align with Romania's unique economic and environmental landscape.

Sector-Specific Strategies

- The **sector-specific roadmaps** developed through extensive consultations highlight the tailored approach required for effective transition.
- Each sector – from consumer goods to agriculture – presents **distinct challenges and opportunities**, demanding bespoke strategies for circular practices.

Public-Private Synergy

- The **power of public-private partnerships** stands out as a critical factor for success.
- The **alignment of government initiatives with private sector ingenuity and resources** can accelerate the adoption of circular economy principles, driving systemic change.

Educational and Cultural Shift

- A significant **shift in mindset and culture**, supported by educational initiatives, is essential for the widespread adoption of circular practices.
- **Awareness campaigns and training programs** are key levers in building a society that values sustainability and responsible consumption.

Monitoring and Evaluation

- The importance of a **robust monitoring and evaluation framework** cannot be overstressed.
- Such a framework is crucial for tracking progress, identifying areas for improvement and ensuring accountability and transparency in the transition process

FUTURE OUTLOOK

Looking forward, Romania stands at the forefront of a significant transformation. The recommendations and insights presented in this report are a call to action for all stakeholders. The journey towards a circular economy is continuous and sustained commitment and collaboration will be key to achieving our shared vision for a sustainable, prosperous Romania.

"Circularity in Action" serves as a testament to the collaborative spirit and dedication of all stakeholders involved. We move forward with a sense of optimism and responsibility, acknowledging the work ahead and embracing the collective endeavour to shape a sustainable future for Romania.