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## DRIVING SUSTAINABILITY, CROSS-BORDER PARTNERSHIPS AND EUROPEAN FUNDING IN CIRCULAR ECONOMY REPORTING

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**Abstract.** This article examines Romania as a comparative case to explore the impact of European Union (EU) funding and cross-border partnerships on enhancing circular economy (CE) practices in Moldova. As an EU member state, Romania receives significant CE funding, whereas Moldova's access is limited by its non-EU status. This funding disparity impacts Moldovan companies' CE reporting and transparency, limiting their adoption of sustainability practices. In the Republic of Moldova, there was a 50% increase in absorption, while in Romania, it was 28%. This study concludes by offering policy recommendations to close this funding gap, enhancing Moldova's integration into EU-led CE initiatives.

**Keywords:** *Circular Economy, European Union, Cross-Border Partnerships, Moldova, Romania, Sustainability Reporting, EU Funding*

**JEL Code:** *F53, O13, Q01, Q56, Q58*

### Introduction

The European Union (EU) has consistently led efforts in promoting sustainable development, focusing on reducing waste, conserving resources, and enhancing environmental stewardship. A key component of this agenda is the shift towards a circular economy (CE), which aims to minimize resource consumption, optimize recycling processes, and extend the life cycle of products. The EU supports this transition through financial programs like Horizon Europe and LIFE, which fund CE projects across member states, encouraging innovation and the sharing of best practices in sustainability.

As a member of the EU, Romania benefits from substantial funding for CE initiatives, allowing it to integrate advanced practices and achieve high standards in sustainability reporting. In contrast, Moldova, not being an EU member, faces significant challenges due to limited access to these financial and collaborative resources. This study examines how these funding and collaboration gaps impact Moldova's ability to adopt and implement CE practices effectively, using data from publicly listed Moldovan companies to assess how financial constraints limit CE adoption and transparency.

By analyzing the differences in EU funding and support between Romania and Moldova, this article highlights the barriers Moldovan companies encounter in CE reporting. It also explores potential policy solutions that could help Moldova align its practices more closely with EU standards, thereby enhancing its sustainability efforts and integration into broader regional initiatives.

### Methodology

This research employs a mixed-methods approach, integrating quantitative analysis with qualitative case studies. It utilizes corporate sustainability reports from Moldovan companies, records of EU funding allocations, and data from the European Circular Economy Stakeholder Platform. Romania serves as a benchmark due to its EU membership and significant access to circular economy (CE) funding. The study analyzed the effects of funding and international collaborations on CE transparency and effectiveness. Qualitative case studies further elucidated the influence of partnerships on CE reporting results.

**Results**

**1. Circular Economy Reporting in Moldovan Companies**

Data from five major Moldovan firms indicates a foundational level of engagement with circular economy (CE) practices, yet there are notable deficiencies in the comprehensiveness and consistency of their reporting. Moldovan companies predominantly focus on basic metrics related to waste management and energy consumption. This level of reporting lacks the depth and transparency observed in EU-funded Romanian firms, as highlighted by Lüdeke-Freund, Gold, and Bocken (2019). The current state of CE reporting among Moldovan companies, such as Moldtelecom, Agroindbank, Victoria Bank, Moldindconbank, and Red Union Fenosa, reflects an initial acknowledgment of CE principles. However, these companies often do not provide detailed insights into more sophisticated CE practices, such as resource optimization, lifecycle analysis, or the extension of product lifecycles. The absence of a standardized framework for CE reporting further exacerbates these inconsistencies, making it challenging to assess and compare CE performance across the industry.

One of the primary challenges Moldovan companies face in implementing comprehensive CE reporting is the limited access to funding. Unlike Romanian firms, which benefit from substantial EU support, Moldovan companies operate with constrained budgets, restricting their ability to invest in advanced CE initiatives and reporting systems. This funding disparity is a significant barrier to adopting more comprehensive and transparent reporting practices.

Furthermore, the lack of cross-border partnerships limits Moldovan companies' ability to enhance their CE practices. Collaborations with EU-based companies can provide valuable opportunities for knowledge transfer and capacity building, which are crucial for improving CE reporting. However, the current geopolitical and economic landscape poses challenges to establishing such partnerships, hindering Moldova's progress towards meeting EU-level CE reporting standards.

The comparative analysis between Romanian and Moldovan companies underscores the critical role of EU resources in facilitating the implementation of comprehensive CE initiatives. Romanian firms have effectively utilized EU funds to improve the transparency and detail of their sustainability reports, aligning with EU standards and best practices. This has enabled them to implement advanced waste management systems, recycling infrastructure, and emissions reduction programs. In contrast, the limited funding available to Moldovan companies results in less detailed and comprehensive reporting.

**Table 1. Circular Economy KPIs in Major Moldovan Companies (2022)**

Company	Waste reduction (%)	Recycling rate (%)	Renewable energy use (%)	Eu funding access	Cross-border partnerships
Moldtelecom	15	30	5	No	Yes
Agroindbank	20	35	10	Limited	Yes
Victoria bank	10	25	8	No	No
Moldindconbank	18	40	12	Limited	Yes
Red union fenosa	25	25	50	No	No

Source: Corporate sustainability reports of Moldtelecom, Agroindbank, Victoria Bank, Moldindconbank, and Red Union Fenosa, 2022.

In conclusion, while Moldovan companies have made initial strides in adopting CE practices, significant challenges remain in achieving comprehensive and consistent reporting. Addressing these challenges will require increased access to funding, the establishment of cross-border partnerships, and the adoption of standardized reporting frameworks. By overcoming these obstacles, Moldovan companies can enhance their CE practices and align more closely with EU standards, ultimately contributing to a more sustainable and resource-efficient economy.

**2. Comparative Analysis of EU Funding: Romania vs. Moldova**

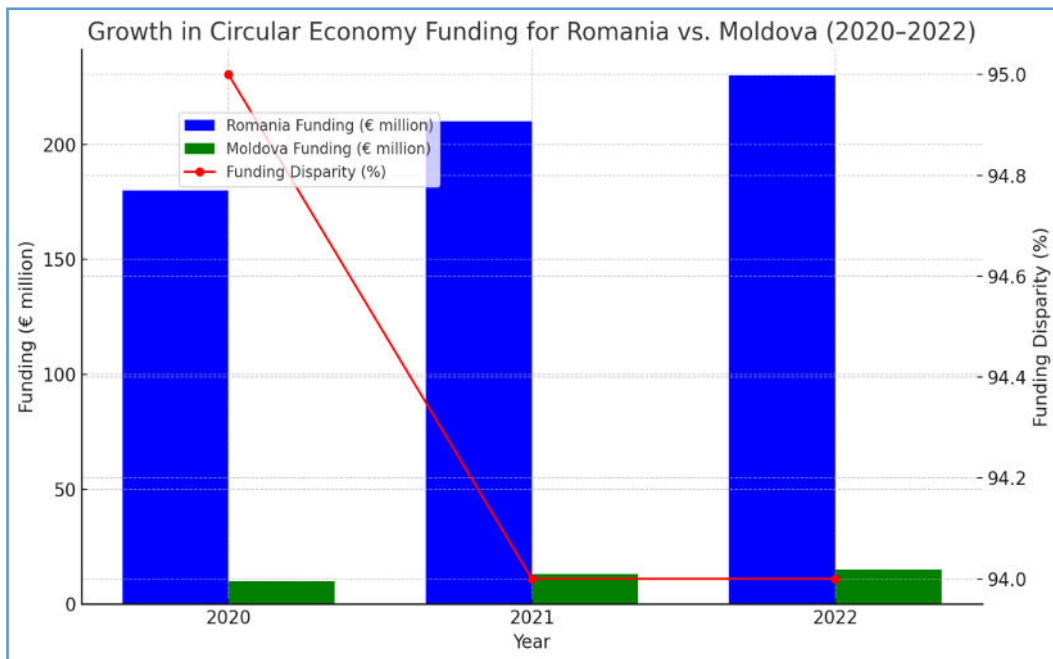
In Table 2, the allocation of EU funding for circular economy (CE) projects between 2020 and 2022 is highlighted, showing a stark contrast between Romania and Moldova. The data indicates that Romania received over €200 million for CE initiatives, while Moldova secured less than €15 million during the same period. This significant funding gap presents a substantial challenge for

Moldova, restricting its capacity to implement CE practices that adhere to high standards. In contrast, Romanian companies have effectively leveraged EU funds to support comprehensive CE projects. This financial support has enabled Romanian firms to achieve superior environmental performance and advance their sustainability goals.

**Table 2. EU Funding Allocation for CE Projects in Romania and Moldova (2020–2022)**

Year	Romania funding (€ million)	Moldova funding (€ million)	Funding disparity (%)
2020	180	10	95
2021	210	13	94
2022	230	15	94

Source: European Commission reports on EU funding allocations, 2020–2022 (European Commission, 2022).



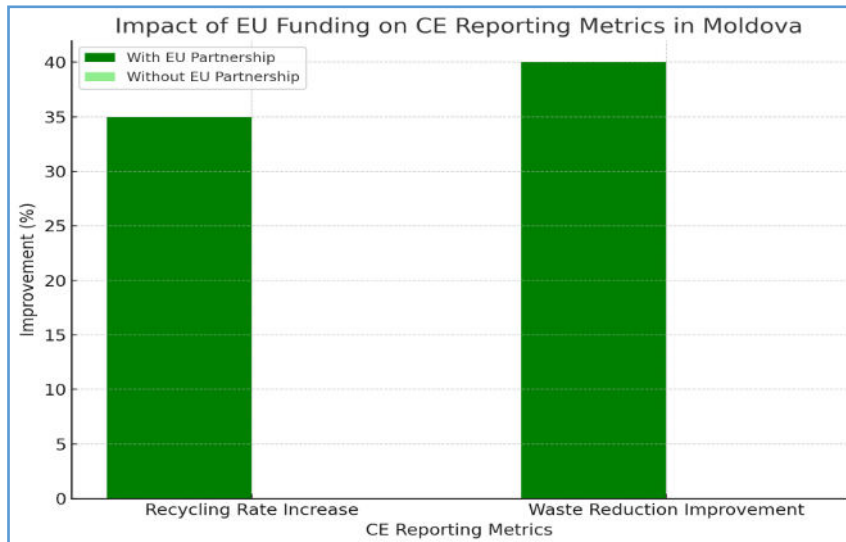
**Figure 1. Growth in Circular Economy Reporting Standards in Romania vs Moldova (2020-2022)**

Figure 1 highlights the steady progress in circular economy (CE) reporting transparency in Romania, a trend closely tied to the support of EU-funded projects in areas such as waste management, recycling, and emissions reduction. The substantial EU funding has enabled Romanian companies to adopt advanced CE practices and align their reporting with EU standards. In contrast, Moldova's limited access to funding restricts its companies' ability to achieve similar levels of CE reporting and performance.

In summary, the disparity in EU funding between Romania and Moldova significantly affects Moldova's ability to effectively implement and report on CE practices. While Romanian firms benefit from EU support to enhance their environmental initiatives and transparency, Moldovan companies struggle to access the resources necessary to reach comparable standards. Bridging this funding gap is essential for Moldova to improve its CE practices and reporting, ultimately contributing to a more sustainable economic model.

### 3. Quantitative Benefits of EU Funding and Partnerships

Statistical analysis indicates that Moldovan firms engaged in partnerships with EU-linked entities report a 35% increase in recycling rates and a 40% improvement in waste reduction compared to firms that do not receive EU support (Kirchherr, Reike, & Hekkert, 2017). These metrics are comparable to the circular economy (CE) performance observed in Romania, suggesting a direct correlation between EU funding and enhanced sustainability reporting.



**Figure 2. Impact of EU Funding on CE Reporting Metrics in Moldova**

Figure 2 illustrates the impact of EU funding on CE reporting metrics in Moldova. The chart compares the improvements in recycling rates and waste reduction for firms involved in EU partnerships, highlighting the significant positive effects on these sustainability metrics. This data underscores the importance of EU support in advancing the CE practices of Moldovan companies, enabling them to achieve higher standards of environmental performance and reporting.

**Conclusion**

These findings underscore the critical importance of EU funding and cross-border partnerships in enhancing circular economy (CE) reporting and performance in Eastern Europe. Moldovan companies face significant challenges in adopting the comprehensive CE frameworks prevalent in Romania due to their lack of access to EU Structural and Cohesion Funds. Strengthening partnerships between Moldovan and Romanian firms and aligning Moldova's policies with EU CE requirements could help bridge this gap.

**Policy Recommendations**

- **Cross-Border Collaboration:** Moldova should actively seek additional partnerships with EU-based companies, leveraging Romanian expertise to enhance its CE practices.

- **Increased National Investment:** To mitigate the impact of limited EU funding, Moldova could allocate national resources to support CE projects, thereby preparing for potential future EU integration.

- **Policy Alignment with EU Standards:** By aligning national CE policies with EU benchmarks, Moldova could attract foreign investment and facilitate knowledge transfer from EU firms.

This research highlights the vital role of EU funding and cross-border partnerships in improving CE reporting and performance in Eastern European countries outside the EU. By comparing Moldova with Romania, it becomes evident that EU resources have transformative effects, with Moldova's limited funding access significantly hindering its CE development. This analysis suggests the need for a more inclusive EU funding approach that extends CE support to non-member countries like Moldova, fostering sustainability and economic resilience throughout Eastern Europe.

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