

ANALYSING CIRCULAR ECONOMY VALUE CHAINS WITH A FOCUS ON STAKEHOLDER ENGAGEMENT AND COLLABORATION DYNAMICS

MARIA HĂMURARU

Moldova State University
Chisinau, Republic of Moldova
maria.hamuraru@usm.md

ADRIANA BUZDUGAN

Moldova State University
Chisinau, Republic of Moldova
adriana.buzdugan@usm.md

Abstract:

The article proposes a critical reconfiguration of traditional value chains, from a linear logic – oriented towards extraction, consumption and disposal – to a circular architecture, in which resources are rethought, reused and reintroduced into sustainable production cycles. This transition is analysed through the lens of interactions between diverse actors, emphasising the complexity of stakeholder engagement and the dynamics of cross-sectoral collaboration. Theoretically grounded in the circular economy paradigm as a strategy for sustainable development, the study examines how circular design and collaborative governance become key tools in increasing resource efficiency and reducing waste. The investigative approach pays particular attention to the concerted participation of relevant actors – governments, businesses, civil society and local communities – in the co-creation of circular solutions, focusing in particular on the socio-economic context of Romania and the Republic of Moldova. The central argument is that the viability of the circular economy cannot be separated from the existence of solid collaboration mechanisms, distributed leadership within the network, transparent communication, and coherent public policies and appropriate economic incentives. In conclusion, the article emphasises that a truly resilient and inclusive circular economy can only be achieved through collective, adaptive efforts that are deeply rooted in local and regional realities. Thus, the circular economy is not just a technical model for optimising resources, but an emerging form of ecological social contract based on solidarity, shared responsibility and collective learning.

Keywords: circular economy, value chains, inter-organisational collaboration, stakeholder engagement, sustainability

JEL Classification: Q01, Q56

1. INTRODUCTION

The circular economy is now emerging as a fundamentally alternative model of sustainable development to the traditional linear paradigm – that of ‘take, make, consume, dispose’ – by proposing a closed-loop approach, in which resources are kept in circulation for as long as possible, waste is minimised and the value of materials is continuously regenerated (Kirchherr *et al.*, 2018; Stahel, 2016). This concept, which has gained global traction amid growing concerns about the depletion of natural resources and multiple environmental impacts, highlights the urgent need to rethink resource management with a view to ecological and economic efficiency (United Nations General Assembly, 2015; Dobre-Baron *et al.*, 2022). Far from being a simple technical adjustment, the circular economy is a critical and systemic response to the structural inefficiencies of the linear economy, which is based on an extractive and dissipative logic, where resources gradually lose their value over a one-way journey. Breaking with this wasteful logic, the circular model aims not only to slow down the flow of materials, but also to restore and maintain their value through strategies such as consumption reduction, reuse, repair and recycling. This paradigm shift, brought to the forefront by pioneering initiatives such as the Ellen MacArthur Foundation (2013) and consolidated by academic research (Plotnic & Praporšćic, 2024; Kirchherr *et al.*, 2017), is therefore not limited to technical and industrial innovation: it involves a profound reconfiguration of the relationship that societies have with the materiality of the economy, natural resources and ecosystem balances. In this sense, the circular economy is less a solution than a framework for thinking, a call to revisit the very foundations of production and consumption from an ethical, responsible and sustainable perspective.

2. MATERIALS AND METHODS

The conceptual and political rise of the circular economy in recent decades has been catalysed by a number of significant institutional initiatives. The Ellen MacArthur Foundation has played a central role in articulating a coherent economic narrative in favour of the circular transition, bringing to the attention of policymakers and market actors not only the environmental benefits but also the economic opportunities of this model (Ellen MacArthur Foundation, 2013). In parallel, the European Union has integrated the circular economy into the heart of its sustainable development strategies through policy documents such as the Circular Economy Action Plan (European Commission, 2015, 2020), which propose closing value loops and transforming circularity into a vector for competitiveness. In a broader context, the United Nations has anchored the principles of the circular economy in its global sustainable development goals, in particular SDG 12 – Responsible consumption and production (United Nations

General Assembly, 2015), thereby strengthening the universal and cross-sectoral status of this model.

Walter R. Stahel, one of the pioneers of the concept, argues that a circular economy generates "*a new relationship with our goods and materials*", with the potential to save resources, reduce pollution and create jobs locally (Stahel, 2016). The opening of the current framework for reflection on the circular economy highlights the imperative of rethinking value chains in a circular manner, going beyond the mere technological dimension or business model innovation. There is an increasing focus on the need for multisectoral cooperation to anchor the transformations in a broad collaborative framework in which the actors involved – from public institutions and the private sector to civil society and academia – act synergistically.

An essential step in this direction is to identify and address the specificities of value chains in the circular economy, understood not only as economic structures but as dynamic networks of interaction between stakeholders. Their active and conscious participation is not just a contextual element but a determining factor for success in the transition to circularity. In this regard, recent analysis – from both a theoretical and applied perspective – highlights the nuanced ways in which interdependencies between actors shape the trajectory of implementation.

Contributions from Romania and Moldova provide a valuable framework for contextualised understanding of these processes, highlighting not only the systemic challenges of the region, but also its adaptive capacity and local innovation potential. These regional perspectives are not mere appendices to the global discourse on circularity, but constitute important landmarks for understanding how the circular economy can be anchored in diverse socio-economic realities and, through this, become sustainable and resilient in the long term.

3. CORE CONTENT

Circular economy value chains are the network of activities and partnerships through which products maintain their value throughout their extended life cycle. Instead of the value of materials being lost at the end of use, as happens in a linear value chain, in a circular value chain materials and components are reintegrated into production, repaired or recycled so as to create new value cycles (Kirchherr *et al.*, 2017; Zucchella & Previtali, 2018). With circular design, products are designed from the outset to facilitate the disassembly and reuse of components, and waste from one industry can become a resource for another – a concept known as *waste-as-food* in the literature (Zucchella & Previtali, 2018). This ecosystemic model typically involves business model innovation and close co-operation along the entire value chain, from suppliers and producers to distributors, consumers and recyclers (Ellen MacArthur Foundation, 2013; Farooque *et al.*, 2019).

A key feature of circular value chains is their systemic and integrated nature, requiring inter-organisational coordination. For example, closing the materials loop in an industry such as electronics or textiles requires collaboration between producers (facilitating repairability and recycling), consumers (returning or handing in used products), collection and recycling centres, and policy makers who can incentivise these practices through regulation (OECD, 2020; Kirchherr *et al.*, 2018). The World Economic Forum emphasises that an effective circular value chain relies on deep collaboration between diverse actors (World Economic Forum, 2019), including private companies, non-governmental organisations, local communities and authorities, so that all links – from the design stage to waste management - are aligned towards common goals. There is also an emphasis on the *inclusiveness* of circular value chains, where marginalised communities or local groups can play an active role and benefit from the transition, thus avoiding the repetition of inequalities in previous development models (Milošević *et al.*, 2025).

Studies emphasise that transforming traditional value chains into circular value chains brings multiple benefits as well as challenges. The advantages of transitioning to a circular economy are numerous: more efficient use of resources, substantial long-term savings, and the emergence of new opportunities for innovation and business models (Stahel, 2016; Ellen MacArthur Foundation, 2013). However, this systemic transformation is not without challenges. One of the main obstacles is the need for a high degree of coordination and cooperation between the various actors in the value chain – a requirement that goes far beyond that imposed by the traditional linear model. This need for inter-organisational collaboration, which is often complex, becomes even more difficult when certain actors, whether producers or consumers, show little interest or do not clearly perceive the benefits – or even the necessity – of such a transition (Kirchherr *et al.*, 2018).

Extensive research conducted at the European Union level confirms that *consumer disinterest* and *cultural reluctance within companies* are among the main barriers to the widespread adoption of circular practices, even ahead of technological barriers (Kirchherr *et al.*, 2017). It therefore appears that the obstacles are not only technical or economic, but also deeply cultural and institutional.

Indeed, the lack of an organisational culture conducive to change, combined with consumer disengagement, weakens the systemic dynamics necessary for the circular reconstruction of value chains. Thus, for the circular economy to truly take root, it is imperative to move beyond purely economic rationality and think about transformation from a holistic perspective that includes the social, cultural and behavioural dimensions of collective action.

This situation highlights the crucial importance of the active and concerted involvement of all relevant actors. The successful reconfiguration of value chains

into a circular paradigm cannot take place without alignment to a common vision, supported by appropriate incentives and an institutional framework that fosters deliberative participation. From this perspective, stakeholder involvement and collaborative dynamics are not only enabling conditions but essential elements for the operationalisation of a genuine circular economy – aspects that will be detailed in the following sections. From a resolutely systemic perspective, the circular economy mobilises a diverse range of stakeholders whose coherent interaction is essential to the effective implementation of its underlying principles. These stakeholders – or *acteurs concernés* in French terminology – cover a broad spectrum: public authorities (at local and national level), private companies throughout the value chain, non-governmental organisations, academic and research institutions, local communities and citizens as consumers or end users.

Due to its holistic nature, the circular economy requires a profound structural transformation in which all actors – whether from the public sector, the private sector, the scientific community or civil society – have a role to play. As the OECD points out, this transition ‘requires systemic change, involving all stakeholders, from citizens to knowledge institutions’ (OECD, 2020). As a result, the effective involvement of stakeholders is not simply a procedural addition, but a prerequisite for designing and implementing robust and sustainable circular economy strategies.

Many international organisations emphasise the need to engage these stakeholders in an inclusive, transparent and structured manner in decision-making processes relating to the circular economy (OECD, 2020; Ellen MacArthur Foundation, 2021). The OECD specifies that consultation should include ‘different levels of governance (multi-level), the private sector, regulators, service providers, development agencies, investors, and civil society in its various forms (citizens, NGOs, consumer movements, etc.), "illustrating the inherent plurality and complexity of circular governance (OECD, 2020). etc.)", thus illustrating the plurality and complexity inherent in circular governance (OECD, 2020).

This participatory approach, based on inclusiveness, provides a better understanding of the specific needs of each category of actors, while strengthening the democratic legitimacy of the policies adopted. At the same time, it increases the chances of success of circular initiatives by promoting their collective ownership and adaptation to local realities.

Early and active stakeholder involvement has multiple benefits: it increases stakeholder buy-in and trust in circular projects, facilitates social acceptance of new models (e.g. second-hand products, packaging return systems) and allows early identification of possible obstacles or divergent views (OECD, 2020; Kirchherr *et al*, 2018). For example, governments developing national circular economy strategies have set up consultation platforms with business and civil society: the case of the European Circular Economy Stakeholder Platform

launched in 2017 is illustrative, bringing together networks and best practices from across Europe in a joint effort to accelerate the transition (Ellen MacArthur Foundation, 2021). At the national level, countries that actively involve citizens and consumer organisations in circularity policies – such as the Netherlands, which is revising its circular roadmap by putting the citizen at the centre – are achieving better results in changing consumption behaviour (OECD, 2020).

Companies from different sectors are also collaborating with NGOs and research institutions to develop innovative circular solutions, from biodegradable packaging to sharing platforms. In these multi-stakeholder collaborative networks, it is sometimes necessary to have an "*orchestrator*" – a central entity that facilitates interactions, aligns the parties' goals and manages joint projects (Zucchella & Previtali, 2018). Involving dedicated *innovation champions* or project leaders can increase the chances of success, as they can balance the individual stakeholder interests with the network's common goal (Batista *et al.*, 2018; Zucchella & Previtali, 2018). The literature shows that when the needs and roles of different stakeholders are explicitly identified and addressed, commitment and joint decisions are facilitated (Frishammar & Parida, 2019; OECD, 2020). Public-private partnerships in waste management or extended producer responsibility schemes are not simply technocratic formulas; they are, in fact, complex arenas of negotiation between authorities, producers and recyclers operating in an often fragmented socio-economic landscape. Without a clear framework for communication and delineation of responsibilities, the effectiveness of these mechanisms risks being compromised and their transformative potential wasted (OECD, 2020).

In Romania and the Republic of Moldova, the involvement of relevant actors in circular economy initiatives is still at an early but promising stage, as the concept begins to be internalised at the local level. Romania, supported by European structures, has outlined a national strategy for the circular economy, a process in which experts, representatives of the business community and civil society were consulted – an essential step in formulating coherent and prioritised implementation measures (European Commission, 2020). The literature indicates that, although the conditions for a genuine transition to a circular economy exist – especially in the context of external pressures and alignment with EU policies – achieving these objectives remains dependent on collaborative perseverance between the government, the private sector and citizens (Dobre-Baron *et al.*, 2022; Milošević, Arsić, & Stojanović, 2023).

In the Republic of Moldova, the challenges are different but no less significant. Recent research highlights the need to adapt the principles of the circular economy to the structural realities of the national economy, suggesting that there can be no successful model without a strategic algorithm for action. This algorithm should include reducing pressure on the environment and optimising the use of resources – a task that is impossible to achieve without cohesion

between the government, local businesses and civil society (Ganea *et al.*, 2022). In fact, without joint commitment and active participation from these parties, strategies remain exercises in good intentions with limited practical relevance – a lesson that is universally valid in any transition to circularity.

Thus, what appears to be a technical process of implementing environmental policies becomes, in essence, a challenge of participatory governance, where success depends on building trust, institutional coherence and the ability of each society to transform global principles into locally adapted solutions.

In conclusion, stakeholder involvement in the circular economy is not only desirable, but mandatory: only through *co-creation* and *continuous dialogue* between actors can widely accepted solutions be generated and obstacles such as lack of trust or resistance to change be avoided (Kirchherr *et al.*, 2018; OECD, 2020). This level of engagement sets the stage for the dynamics of collaboration, which will be discussed below.

Collaboration between stakeholders in circular value chains is a dynamic, often complex process, involving coordination, communication and alignment of objectives between actors with different perspectives and interests. The dynamics of collaboration evolve over time as partners learn to work together, share information and adjust their practices to achieve the common goal of circularity. The literature highlights some key aspects of successful collaboration in the context of the circular economy:

a. Establishing a common vision and shared goals: A critical factor is that all actors involved – be they producers, authorities or NGOs – agree on the overall goals (e.g. reducing waste by X% or increasing recycling rates to a certain level) and the values that guide the collaboration (Ellen MacArthur Foundation, 2021; OECD, 2020). A clear vision, communicated at the outset, helps to motivate the parties towards *common goals*, even if their individual interests may differ. Ishii and van Houten (co-chairs of the Platform for Accelerating the Circular Economy) emphasise the need for "*deep collaboration between business, government and civil society*" to achieve a resilient circular economy, pointing out that only by combining the knowledge, power and influence of these actors can systemic results be achieved (Ellen MacArthur Foundation, 2021). In other words, effective collaboration is based on empathy and an understanding of each partner's motivations, allowing points of convergence to be identified.

b. The role of orchestrators and network leaders: In many large-scale circular initiatives there are entities or leaders that act as "orchestrators" of the network of stakeholders, facilitating co-operation. Focusing around a central actor – which can be an innovative company, a visionary local authority or a collaborative platform – helps to coordinate tasks and maintain common momentum (Zucchella & Previtali, 2018; Kujala *et al.*, 2023). For example, a *focal firm* in an agricultural circular chain can coordinate farmer cooperatives, processors, retailers, and phytosanitary authorities, ensuring that everyone fulfils

their role and that information flows from one end of the chain to the other (Zucchella & Previtali, 2018). Such orchestrators create spaces for sustainable interaction, such as public-private partnerships or circular industry clusters, and can act as mediators when tensions or conflicts of interest arise between parties (Batista *et al.*, 2018). The result is often increased trust between partners and greater joint decision-making capacity, which are essential for complex projects involving joint investment and benefit sharing (Kujala *et al.*, 2023).

c. Communication mechanisms and knowledge sharing: Effective collaboration requires transparency and continuous communication. Regular meetings, digital data-sharing platforms, and common performance indicators can support alignment and monitoring of progress (Frishammar & Parida, 2019). In the circular economy, where innovation is often incremental and experimentation-based, *mutual learning* between partners plays a key role (Oberholzer *et al.*, 2023). For example, a manufacturer can learn from a recycler about how to optimally design a package for recycling, while the recycler can learn from the manufacturer about new materials being introduced to the market. Such knowledge exchanges, sometimes facilitated by coordinated stakeholder networks or joint pilot projects, can lead to process or product innovations beneficial to all parties (Farooque *et al.*, 2019; Ascione *et al.*, 2021). Of course, for these exchanges to take place, a climate of trust and an attitude of *open innovation* is needed, where parties are willing to share sensitive information knowing that the long-term benefit is mutual.

d. Creating the right incentives and frameworks for collaboration: cross-sectoral collaboration often needs an external impetus, either in the form of economic incentives (grants, co-financing, tax benefits for circular projects) or regulations mandating cooperation (such as reporting obligations or recovery targets imposed on companies) (OECD, 2020; European Commission, 2020). One example is *deposit-payment* schemes for packaging, which induce retailers, manufacturers and local authorities to co-operate on collection and return systems for reusable packaging. The dynamics of collaboration in such cases are influenced by how costs and benefits are shared: it is important that no actor perceives that it bears the costs of the transition alone, while others reap the benefits (Kirchherr *et al.*, 2018). Here, participatory governance and honest dialogue become key to adjust the collaborative framework - for example, by negotiating purchase prices for recycled materials or sharing savings from efficiencies (OECD, 2020).

e. Overcoming obstacles to collaboration: Even with common goals, collaboration can be hampered by obstacles such as differences in organisational culture, lack of mutual trust or communication problems. Research indicates that many of these obstacles can be mitigated through trust-building initiatives - for example, through successful small projects carried out together that create a positive track record of partnership (Kirchherr *et al.*, 2018). It is also useful to

involve neutral third parties (such as mediators, consultants or support organisations) to facilitate dialogue and provide independent technical expertise when the parties fail to reach technical or economic consensus (OECD, 2020). Another aspect is the adaptability of collaboration: circular value chains are constantly evolving due to technological advances (e.g. the emergence of digital collaborative economy platforms or monitoring technologies through the Internet of Things), so partnerships need to be *flexible* and willing to recalibrate their mode of cooperation along the way (Awan *et al.*, 2021; Geissdoerfer *et al.*, 2017). The ability to jointly innovate - to develop circular business models together - is the next level of collaboration, where parties create new value that they could not have achieved individually (Frishammar & Parida, 2019; Geissdoerfer *et al.*, 2018).

4. RESULTS AND DISCUSSIONS

Overall, the dynamics of collaboration in the circular economy are characterised by an *ecosystem approach*: each actor realises that it is part of a wider system and that its own performance depends to a large extent on the performance of others. Creating the conditions for collaboration – either through public policy or voluntary industry initiatives – thus becomes a priority. The Ellen MacArthur Foundation (2021) emphasises that achieving system-wide solutions requires well-coordinated collective efforts: the traditional compartmentalised way of working (in *silos*) is no longer effective in the face of systemic challenges such as environmental challenges. Instead, joint teams, cross-sectoral partnerships and innovation networks are being promoted, with each contributing its own expertise. Through these collaborative mechanisms, circular value chains are realised and the benefits – economic, social and environmental – are amplified for all involved.

The transition to the circular economy is at an early stage in Eastern Europe, but interest and initiatives in Romania and the Republic of Moldova have visibly increased in recent years. In Romania, alignment with European policies has led to concrete steps: the elaboration of the National Strategy for the Transition to the Circular Economy (2022-2030) involved consultation with domestic stakeholders, and the related Action Plan foresees measures in areas such as waste management, eco-design in industry, sustainable consumption and circular innovation (European Commission, 2020). Academic research shows that Romania starts from a relatively low level of circularity indicators (e.g. municipal waste recycling rates below the EU average and a low rate of reuse of materials) – fluctuations detailed by Oana Dobre-Baron *et al.* (2022) point to precisely these challenges, especially in the area of packaging and household waste. However, in the long term, econometric models suggest favourable premises for improving these indicators if policies are implemented consistently and private actors increase their investments in the necessary technologies (Dobre-Baron *et al.*, 2022). A key element highlighted in work on the transition to a circular economy is the

importance of raising awareness and increasing participation, both among the public and among businesses. Without significant changes in consumer behaviour and without the active involvement of businesses in waste reduction, the strategic objectives set will be difficult to achieve. In this regard, coalitions and platforms bringing together stakeholders interested in circular dynamics are emerging in Romania. The Circular Economy Coalition (CERC), for example, is working to promote the objectives of the European Union's Circular Economy Action Plan at the national level by supporting the development of new circular markets and sustainable economic models (Circular Economy Coalition, n.d.). These participatory networks help to build a collaborative dynamic by creating spaces for dialogue between public institutions, businesses and civil society.

In the Republic of Moldova, the circular economy is beginning to be integrated mainly through waste management and resource efficiency issues, within the broader framework of national efforts to promote sustainable development. Although Moldova is not a member of the European Union, European trends are nevertheless increasingly influencing the national environmental agenda. In 2022, a group of Moldovan and Romanian authors (Ganea *et al.*, 2022) analysed the circular economy as a relevant prospective model for Moldova, highlighting the need to adapt its principles to the specific realities of the local context. Their analysis calls for a reduction in environmental pressure through policies focused on reuse and optimal resource recovery, while also calling for the development of an institutional framework capable of providing concrete support for the functioning of the circular economy in the Moldovan socio-economic space (Ganea *et al.*, 2022).

This perspective once again highlights that the transition to a circular economy cannot succeed without deep societal roots, shared governance and a collective capacity to translate global principles into concrete actions adapted to local contexts.

Among the reported challenges are underdeveloped recycling infrastructure, lack of economic incentives for companies to adopt circular models, and a low level of public awareness of the benefits of circularity. However, there are positive steps: the involvement of non-governmental organisations such as *e-Circular* (an association founded in 2010 to promote circular economy in Moldova) running education and pilot projects at local level, or cross-border collaborations bringing expertise from Romania to develop pilot circular economy strategies at municipal level. A notable example is the national conference "Circular Economy in the Republic of Moldova" (2023), where topics such as waste management, extended producer responsibility and financing of circular projects were discussed by authorities, academia and the private sector, a sign that multi-stakeholder dialogue is starting to take shape here as well.

In both Romania and Moldova, a determining factor for the success of circular initiatives will be the strengthening of partnerships. European funds and

international technical assistance can provide important catalysers, but implementation depends on the capacity of local actors to collaborate effectively. In Romania, the application of circular economy principles in sectors such as construction, textiles, agriculture or waste management requires co-operation between private firms and authorities, as well as the active participation of local communities to embrace and support change (European Commission, 2020). In Moldova, where financial resources and infrastructure are more limited, collaboration becomes all the more necessary to share costs and benefit from synergies; for example, industrial parks could be rethought along the lines of *industrial symbiosis* - businesses sharing resources and waste streams – but this requires policy coordination and strong public-private partnerships (Ganea *et al*, 2022).

In conclusion, the regional perspective confirms on a smaller scale the general conclusions: engagement and collaboration remain the cornerstones of the circular economy. Without a real engagement of stakeholders across sectors and a collaborative dynamic that generates trust and joint action, circular value chains cannot be built and sustained in the long term. Both Romania and Moldova are on the necessary trajectory, but the pace and scale of the transition will depend on the extent to which key actors work together to overcome existing barriers and capitalise on the opportunities of a circular economy.

5. CONCLUSIONS

The transition to circular economy value chains is a complex endeavour, requiring both technological and organisational transformations, underpinned by a new collaborative paradigm. This analysis has highlighted that stakeholder involvement and the dynamics of collaboration between stakeholders are not secondary elements, but central success factors in the implementation of the circular economy. The theoretical underpinning and practical examples clearly show that a circular economy cannot be built in isolation: it "*requires a system change*" in which governments, business, academia and citizens act in concert. Circular value chains require ecosystem partnerships, in which value is co-created, distributed and recaptured through joint endeavour (Zucchella & Previtali, 2018; Ellen MacArthur Foundation, 2013).

As the literature progresses and more empirical studies become available, the evidence on the role of collaboration is also strengthening: cities and regions that have adopted participatory approaches and facilitated collaboration between parties demonstrate higher success rates in circular projects (OECD, 2020). Mutual trust, shared vision and open communication have proven to be indispensable ingredients of successful initiatives, be it industrial symbiotic networks, collaborative economy platforms or national recycling schemes (Frishammar & Parida, 2019; Kirchherr *et al*, 2018). At the same time, it appears that barriers to the adoption of the circular economy – such as a reluctant organisational culture or a lack of awareness – can only be overcome by directly

involving the relevant stakeholder groups. This requires consumer education, the introduction of incentives for businesses through public policy, and the active involvement of civil society in deliberative processes (Kirchherr *et al.*, 2018; European Commission, 2020).

In the case of Romania and the Republic of Moldova, these findings are particularly relevant. Although their economic and social contexts are different, these two countries share a common potential: that of benefiting from the integration of circular principles into their value chains, provided that they develop effective collaboration mechanisms, both internally and externally. Recent academic work in the region (Dobre-Baron *et al.*, 2022; Ganea *et al.*, 2022) also emphasises the need for a contextualised and cooperative approach, involving local actors in defining solutions tailored to their realities.

Furthermore, the involvement of these countries in regional and international initiatives related to the circular economy – whether European platforms or partnerships with organisations such as the OECD or the UN – opens up significant opportunities for the exchange of best practices and access to strategic resources that could accelerate progress at the national level.

What the research reveals is that circular economy value chains are not built in isolation: they are built through cooperation. Stakeholder participation is not simply a procedural requirement, but the very driving force behind innovation and resilience in these new economic models. Positive collaborative dynamics – whether in the form of strategic alliances, orchestrated networks or participatory mechanisms – transform the challenges of transition into opportunities for sustainable development.

Thus, the circular economy can no longer be considered a mere theory or normative framework; it is increasingly emerging as a partnership-based practice that reconciles economic objectives with social and environmental imperatives (Stahel, 2019; Ellen MacArthur Foundation, 2021). Fully realising this vision will require perseverance and continuous adaptation, but the expected benefits – ecosystem protection, job creation, emergence of new markets – fully justify collective investment in energy and cooperation (Tjiptadjaja & François-Ferrière, 2024).

In closing, we can say that circular value chains are, at their core, chains of collaboration: they bring governments, businesses and communities together in a common endeavour to rethink how we create and sustain value. The future of the circular economy depends on strengthening these links and on our collective ability to learn from each other, to innovate together and to act in solidarity towards a common goal – a sustainable future.

References

- 1) Ascione, G.S., Cuomo, F., Mariotti, N. *et al.* (2021). *Urban Living Labs, Circular Economy and Nature-Based Solutions: Ideation and Testing of a New Soil in the City of Turin Using a Multi-stakeholder Perspective*. *Circ. Econ. Sust.* 1, 545–562. <https://doi.org/10.1007/s43615-021-00011-6>
- 2) Awan, U., Sroufe, R., & Shahbaz, M. (2021). *Industry 4.0 and the circular economy: A literature review and recommendations for future research*. *Business Strategy and the Environment*, 30(4), 2038–2060. DOI: 10.1002/bse.2731
- 3) Batista, L., Bourlakis, M., Liu, Y., Smart, P., & Sohal, A. (2018). Supply chain operations for a circular economy. *Production Planning & Control*, 29(6), 419–424. <https://doi.org/10.1080/09537287.2018.1449267>
- 4) Circular Economy Coalition (CERC). (n.d.). *Coaliția pentru Economie Circulară – Obiective și inițiative în România*. Recuperat din Circular Economy EU Platform: <https://circulareconomy.europa.eu/platform/en/dialogue/existing-eu-platforms/cerc-coalitia-pentru-economie-circulara-circular-economy-coalition>
- 5) Dobre-Baron, O., Nițescu, A., Niță, D., & Mitran, C. (2022). *Romania's perspectives on the transition to the circular economy in an EU context*. *Sustainability*, 14(9), 5324. <https://doi.org/10.3390/su14095324>
- 6) Ellen MacArthur Foundation. (2013). *Towards the circular economy: Economic and business rationale for an accelerated transition* (Vol. 1). Ellen MacArthur Foundation. <https://www.ellenmacarthurfoundation.org/towards-the-circular-economy-vol-1-an-economic-and-business-rationale-for-an>
- 7) Ellen MacArthur Foundation. (2021, August 16). *Fostering collaboration to obtain system-level solutions*. Ellen MacArthur Foundation (Policy & Business section). <https://www.ellenmacarthurfoundation.org/covid-19-fostering-collaboration-to-obtain-system-level-solutions>
- 8) European Commission. (2015). *Closing the loop – An EU action plan for the Circular Economy* (COM/2015/614 final). Bruxelles: Comisia Europeană. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015DC0614>
- 9) European Commission. (2020). *Circular economy action plan: For a cleaner and more competitive Europe*. European Commission. <https://www.eu2020.de/resource/blob/2429166/156d2d98b66b2ff28b6990161eed91e9/12-17-kreislaufwirtschaftsaktionsplan-bericht-de-data.pdf>
- 10) Farooque, M., Zhang, A., Thurer, M., Qu, T., & Huisingsh, D. (2019). *Circular supply chain management: A definition and structured literature review*. *Journal of Cleaner Production*, 228, 882–900. <https://doi.org/10.1016/j.jclepro.2019.04.303>
- 11) Frishammar, J., & Parida, V. (2019). *Circular business model transformation: A roadmap for incumbent firms*. *California Management Review*, 61(2), 5–29. <https://doi.org/10.1177/0008125618811926>
- 12) Ganea, V., Trushkina, N., Țirlea, M. R., & Bîrcă, I. (2022). *Economia circulară – un model de perspectivă pentru Republica Moldova* [Circular economy – a perspective model for the Republic of Moldova]. *Univers Strategic*, 4(52), 52–68.
- 13) Geissdoerfer, M., Morioka, S. N., de Carvalho, M. M., & Evans, S. (2018). "Business models and supply chains for the circular economy." *Journal of Cleaner Production*, 190, 712–721. doi: 10.1016/j.jclepro.2018.04.159

- 14) Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). *The Circular Economy – A new sustainability paradigm?* Journal of Cleaner Production, 143, 757-768. <https://doi.org/10.1016/j.jclepro.2016.12.048>
- 15) Kirchherr, J., Piscicelli, L., Bour, R., Kostense-Smit, E., Müller, J., Huibrechtse-Truijens, A., & Hekkert, M. (2018). *Barriers to the circular economy: Evidence from the European Union (EU)*. Ecological Economics, 150, 264-272. <https://doi.org/10.1016/j.ecolecon.2018.04.028>
- 16) Kirchherr, J., Reike, D., & Hekkert, M. (2017). *Conceptualizing the circular economy: An analysis of 114 definitions*. Resources, Conservation & Recycling, 127, 221-232. <https://doi.org/10.1016/j.resconrec.2017.09.005>
- 17) Kujala, J., Heikkinen, A., & Blomberg, A. (Eds.). (2023). *Stakeholder engagement in a sustainable circular economy: Theoretical and practical perspectives*. Springer Nature. <https://doi.org/10.1007/978-3-031-31937-2>
- 18) Milošević, I., Arsić, S., Stojanović, A. (2023). Corporate Social Responsibility, Circular Economy and Sustainable Development: Business Changes and Implications in Project-Oriented Companies. In: Obradović, V. (eds) Sustainable Business Change. Springer, Cham. https://doi.org/10.1007/978-3-031-23543-6_5
- 19) Milošević, I., Plotnic, O., Stanković, Z., Tick, A., & Buzdugan, A. (2025, February 14–16). *Circular economy as a strategic imperative for fostering sustainability and consumer engagement (K02140)*. In R. Mitoula (Ed.), Book of Abstracts – 2nd Open-Air Cities International Conference: Local and Regional Sustainable Development and Urban Reconstruction. Harokopio University of Athens. ISBN 978-618-87070-3-0.
- 20) Oberholzer, S., & Sachs, S. (2023). *Engaging Stakeholders in the Circular Economy: A Systematic Literature Review*. In: J. Kujala, A. Heikkinen & A. Blomberg (Eds.), *Stakeholder Engagement in a Sustainable Circular Economy* (pp. 57–97). Palgrave Macmillan Cham. https://doi.org/10.1007/978-3-031-31937-2_3
- 21) OECD. (2020). *The Circular Economy in Cities and Regions: Synthesis Report*. Paris: OECD Publishing. <https://doi.org/10.1787/10ac6ae4-en>
- 22) Plotnic, O., & Praporšćic, V. (2024, May 17–18). *Legal adaptation strategies for unforeseen events in the circular economy through the integration of resilience and material reuse*. In European Financial Resilience and Regulation (pp. 256–270). Iași: Universitatea „Alexandru Ioan Cuza” din Iași. ISBN 978-606-714-891-6; ISSN 3044-8689.
- 23) Stahel, W. R. (2016). *The circular economy*. Nature, 531(7595), 435-438. <https://doi.org/10.1038/531435a>
- 24) Stahel, W. R. (2019). *The Circular Economy: A User's Guide*. Londra: Routledge. 118 p.
- 25) Tjiptadjaja, T., & François-Ferrière, M. (2024, May 29). *5 critical actions to establish inclusive, collaborative and sustainable circular value chains*. World Economic Forum. Retrieved from <https://www.weforum.org/stories/2024/05/5-critical-actions-to-establish-inclusive-circular-value-chains/>
- 26) United Nations General Assembly. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. New York: United Nations. <https://sdgs.un.org/2030agenda>
- 27) World Economic Forum. (2019). *Platform for accelerating the circular economy (PACE): A global public-private collaboration platform and project accelerator*.

- Prepared in collaboration with Accenture Strategy. https://www3.weforum.org/docs/WEF_PACE_Platform_for_Accelerating_the_Circular_Economy.pdf
- 28) Zucchella, A., & Previtali, P. (2018). *Circular business models for sustainable development: A “waste is food” restorative ecosystem*. *Business Strategy and the Environment*, 28(2), 274-285. <https://doi.org/10.1002/bse.2216>