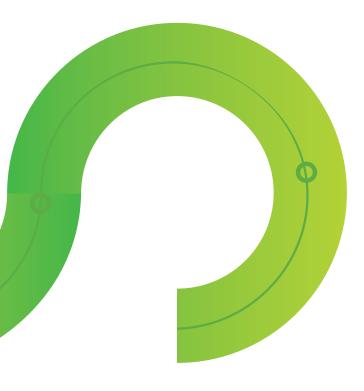
CIRCULAR ECONOMY ROADMAP OF KOSOVO



Ministria e Mjedisit, Planifikimit Hapësinor dhe Infrastrukturës Ministarstvo životne sredine, prostornog planiranja i infrastrukture Ministry of Environment, Spatial Planning and Infrastructure



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The global extraction and processing of resources has reached unprecedented levels, contributing to Greenhouse Gas emissions and environmental degradation. We are no longer able to sustain our current linear production and consumption patterns. Transitioning to a circular economy is essential to lowering emissions and protecting the planet on which we live.

Our country is not immune from global climate and environmental threats. In fact, Kosovo suffers from high levels of environmental pollution and from biodiversity loss. Climate change is expected to further exacerbate these challenges and to harm our quality of life.

The signing of the Sofia Declaration on the Green Agenda for the Western Balkans demonstrates Kosovo's commitment to tackle these challenges and to build a sustainable and resilient future for our people. The Kosovo Climate Change Council emphasizes decarbonization beyond the energy sector, and focuses on the potential for climate mitigation in other sectors too. Industry has the potential to make use of circular economy concepts not only to increase efficiency and productivity but also to decarbonize in all steps of product lifecycles. The launch of the Circular Economy Roadmap marks the beginning of our transition to a more sustainable economic model, which will lead not only to sustainable use of resources and a healthier environment, but also to a more resilient and competitive economy.

Our vision is to build a green, healthy and prosperous future for Kosovo which has its foundations in our rich natural and human potential, and which enables continuous sustainable development for present and future generations.

The Circular Economy Roadmap identifies six priority areas for the circular transition and demonstrates that Kosovo has great potential to drive this transformation forward. Moving towards sustainable agricultural and forest management practices, tapping into our talented and creative young people, improving resource efficiency in manufacturing and construction processes, and encouraging a sharing economy are only some of the opportunities that we understand we must work on collectively.

Transitioning to a circular economy is not an easy endeavor and we have a long road ahead of us. This transformation does not depend on public institutions only: it requires extensive and active collaboration between governmental bodies, the private sector, academia, civil society organizations and our development partners.

By developing this document, MESPI has started the process, and it stands committed to pushing the transition forward by building the necessary policy framework, providing the necessary incentives and fostering collaboration with all stakeholders.

Liburn Aliu Minister of Environment, Spatial Planning and Infrastructure Prishtina, March 2023





Kosovo has embarked on an ambitious journey - the transition towards a circular economy. The aim of this journey is to preserve the country's nature and rich biodiversity, to valorize its resources and talent, and to contribute to a more resilient and regenerative economy and a society where everyone has the opportunity to live a good life.

The ongoing **triple planetary crisis** (climate change, pollution, and biodiversity loss), geopolitical changes and supply uncertainty call for systemic action at the global and local levels. More responsible and sustainable production and consumption are becoming ever more vital.

The circular economy is an economic global narrative and a systems solution framework. It is based on three principles, driven by design: eliminating waste and pollution; circulating products and materials (at their highest value); and regenerating nature. Furthermore, it is underpinned by a transition to renewable energy and materials. The circular economy decouples economic activity from the consumption of finite resources, and thus is a resilient system that is good for business, people and the environment. At the same time, it stimulates development of the economy, boosting green job opportunities and fostering competitiveness in the private sector. Moreover, the circular economy has become strategically important for the Western Balkans' green transition following the Green Agenda for the Western Balkans, the Sofia Declaration, the Paris Agreement and the 2030 Agenda for Sustainable Development. This is now an opportunity for Kosovo to thrive.

The development of the Circular Economy Roadmap for Kosovo represents an important milestone in the process of transition towards a circular economy. It is setting the foundations for a better understanding of Kosovo's unique strengths, capabilities, and opportunities that can enable a successful circular transformation.

The first part of this document introduces the global, European and regional context of the circular economy transition and continues with an exploration of the state of play in Kosovo. It further provides a comprehensive circular economy development progress for Kosovo, outlining the distinctive advantages of the Kosovo economy, as well as some challenges that all stakeholders will have to tackle in order to effectively begin the phase of change.

Recognizing that the systemic nature of the circular transition is a rather complex process that can only be tackled by working on all fronts, the power of network governance to complement the public governance permeates the entire Roadmap. The Roadmap is a result of in-depth research and findings collected through multiple stakeholder engagement activities, ensuring equal participation and collective co-creation of Kosovo's circular future. At its core, the Roadmap serves the purpose of providing a strategic direction for Kosovo's transition to a circular economy, outlining the priority and horizontal areas along with opportunities and recommendations for the way forward within circular transformation.

The Roadmap identifies six priority areas, including food and forest systems, the creative and retail sectors, the built environment and the manufacturing sector. Given the strong interdependency of these sectors, the Roadmap also introduces horizontal areas that enable and support priority areas and further enable circular transition. They encompass waste and water management, transport, green public procurement, digitalization and ICT, energy, and education for sustainable and circular practices.

Ultimately, to **foster systemic change**, encourage further stakeholder engagement and stimulate collaboration and industrial symbiosis within Kosovo's economy, **the Roadmap provides a concrete overview and recommendations for possible next steps**, manifested in the collaboration between **network and public governance**. Although the development of the Roadmap and the resulting set of recommendations represent a stepping stone to initiate the dialogue between decision-makers, private sector representatives, academia and civil society, **the success of the circular transformation will substantially depend on practical future joint efforts and driven synergies** to overcome existing barriers and leverage the valuable opportunities that the implementation of a circular economy can bring. **Let this Roadmap serve as an inspiration for positive change**.





rief overview of challenges a

Circular Economy Through Kosovo Lenses

In a rapidly changing world, characterized by severe climate, environmental and social challenges, Kosovo finds itself at a turning point. It is aiming to strengthen its resilience, enforce competitiveness and stimulate economic growth through sustainable development. A long-term vision for the country's sustainable development is defined in the National Development Programme 2030¹, which is currently being developed and foresees concrete measures related to the transition to a circular economy; it focuses on sustainable economic growth, social cohesion and inclusion, a low-carbon economy and protection of the environment.

On its road towards sustainable development, Kosovo plans to set goals for stepping up climate action, boosting job opportunities and creating a favorable investment climate, in accordance with the global agenda. The goals are a testimony of the recognition of the challenges and opportunities that Kosovo is facing in creating green jobs, the use of renewables, digital transformation and social justice.

The Ministry of Environment, Spatial Planning and Infrastructure (MESPI) identified the development of the Circular Economy Roadmap as a priority. The purpose of the Circular Economy Roadmap is to set a basis for the transition from a linear model to a circular economy in Kosovo. This will contribute to addressing and solving environmental issues, increasing the competitiveness of the private sector, and ensuring a better quality of life for everyone.

The concept of the circular economy is based on three principles, driven by design: eliminating waste and pollution, circulating products and materials (at their highest value) and regenerating nature.² Such a model requires a systemic approach and contributes to a regenerative economy and society. It includes environmental protection, reduction of CO₂ emissions and raw material savings. In the overall process, rethinking and redesigning of products and services is crucial. The final goal is to ensure a more responsible and sustainable system of production and consumption.

Accordingly, Kosovo has recognized the circular economy as an opportunity for addressing existing environmental pressures - primarily air pollution, lack of proper waste management and land degradation. Ultimately, the implementation of the circular economy will contribute to creating a healthier and more favorable environment for all the people of Kosovo.

¹ Government of the Republic of Kosovo, Concept for drafting the National Development Strategy 2030.

² Ellen MacArthur Foundation, "What is a circular economy?

Circular economy in a nutshell

We live in a linear economy that follows the traditional "take-make-dispose" approach, where products and materials are thrown away after use, losing resources and value and consequently contributing to irreversible damage to our environment, society and economy. The global economy currently consumes over 100 billion tonnes of materials per year³, and this is expected to double in the next 40 years ⁴, while annual waste generation is projected to increase by 70% by 2050.⁵ In the period between 2015 (when the Paris Agreement was formed) and 2021 (when COP26 took place in Glasgow), 70% more virgin materials were extracted than what the Earth can safely replenish, 6 causing massive emissions of CO₂, water stress and biodiversity loss. Estimates show that 70% of Greenhouse gases (GHGs) are directly related to material handling and use (e.g. extraction and transportation of materials, processing, use of clothes, mobile devices and meals).⁷ It is also evident that the impact of certain waste materials - such as metals, textiles, plastics, food, electric and electronic equipment and batteries - is taking its toll on the environment and human health.8 Our current production and consumption patterns are leading to unprecedented consequences in terms of environmental degradation and biodiversity loss, depletion of natural systems and reserves, resource scarcity and interruptions in raw material supplies, as well as climate change. To address this, the world needs an economic and social change, an innovative, systemic approach to the use of resources, and the redesign of the production and consumption processes.



Figure 1: Linear economy - the "take-make-dispose" approach
Source: Deloitte

A circular economy provides a balance between economic, social and environmental needs and creates opportunities (employment and business) by promoting creativity, innovation and environmental recovery. Recognized as sustainable alternative to the linear economy, the circular economy (due to its focus on design) extends the lifecycle of products and materials by shifting from waste management to holistic and systemic resource management through reuse, repair, refurbishment, recycling, etc., thus reducing waste to a minimum and decreasing greenhouse gas emissions. It thus simultaneously tackles climate change and biodiversity loss, while also addressing pressing social needs and increasing resilience of communities.

³ Circle Economy in collaboration with Deloitte. Circularity Gap Report 2023.

⁴ OECD, Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences.

⁵ Kaza, Yao, Bhada-Tata, Van Woerden. What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050, World Bank, p 24.

⁶ Circularity Gap Reporting Initiative, "Five years of the Circularity Gap Report."

CIRCLE Economy, The Circularity Gap Report - 2022.

⁸ Ibid.



Acting as a beacon for achieving sustainable development, the circular economy is based around five pillars of sustainability: customer value, environmental footprint, a quality workforce, responsible management, and strong communities.⁹

In particular, the circular economy as an overarching concept takes into account both the environmental aspect (in terms of rethinking and redesigning the way societies produce, consume and manage materials) and the social aspect (addressing the needs of communities in terms of sustainable livelihoods, social justice, reducing poverty and stimulating human development).10 By implementing circular solutions, people and businesses will focus on more efficient use of existing materials instead of over-extraction and depletion of natural resources. Consequently, economies are likely to benefit from net material

savings, mitigation of supply risks and long-term resilience.¹¹ Therefore, the transition to the circular economy may provide numerous benefits to both society and the environment by stimulating prosperity, resilience and green job creation, while also tackling urgent environmental issues.



Did you know that circular economy has potential to create around **700,000** new jobs across the Europe by 2030?¹²

The definition of the circular economy is extracted from the concluding points of the speech of Dr. Janez Potocnik, the Co-Chair of the UN International Resource Panel at the World Steel Association's Circular Economy Conference in Brussels. Source: YouTube, Worldsteel, "Dr. Janez Potocnik - Circular economy concept and global trends", 24.5sec.,

¹⁰ Chatham House, Environment and Society Programme, A global roadmap for an inclusive circular economy: For Stockholm+50.

¹¹ World Economic Forum, Towards the Circular Economy: Accelerating the scale-up across global supply chains.

¹² Interreg Europe, "The new Circular Economy Action Plan."

The Ellen MacArthur Foundation's "butterfly"¹³ diagram explains the circular economy practically, as a rethinking process instead of a one-size-fits-all solution. There are two sides to the diagram: the left shows the natural cycle, with renewables, while the right shows manufacturing processes, with finite materials. The **natural cycle** illustrates the flow management of renewables, indicating natural resources and their renewal potential, while the **technical cycle** shows stock management and circulation of materials through reuse, repair and recycling. Of course, in practice both cycles of the diagram need to be equally valued and applied to build a sustainable world.

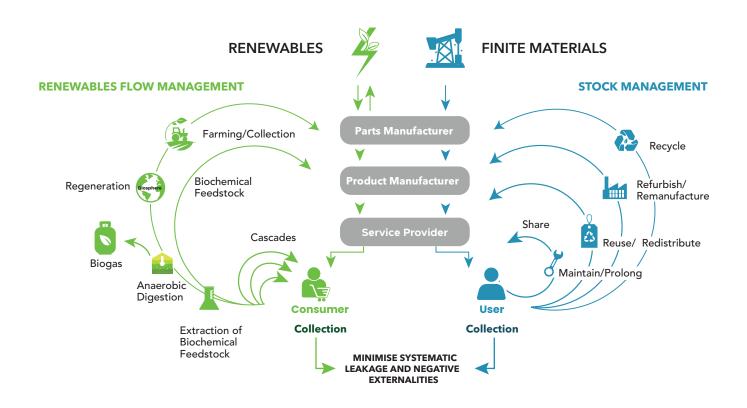


Figure 2: Circular economy systems diagram ("butterfly" diagram)
Source: Ellen MacArthur Foundation

The transition towards a circular economy requires a systemic and participative approach. This demands cooperation among all stakeholders, including public institutions, international organizations, businesses, civil society organizations, the academic and research sector and consumers to work on the same goal. Co-creation of a healthier and more sustainable economy and society is the ultimate goal to be achieved in the long term. Concretely, the integration of the circular economy in companies' daily operations may increase resilience through business model diversification and deliver significant economic growth potential.¹⁴

¹³ Ellen MacArthur Foundation, Circular Economy Systems Diagram.

¹⁴ Ellen MacArthur Foundation, "Financing the circular economy."; World Economic Forum, "Circular Economy and Value Chains."

Circular Economy at a Global Level

Current environmental trends and recent events, in particular geopolitical developments and the COVID-19 pandemic, have led to disruptions in supply chains and changed the dynamics in business and society, highlighting the adverse effects of the linear economic model. In this light, transitioning to the circular economy is increasingly being emphasized as an opportunity to build the resilience and adaptability of supply chains, increase the regenerative potential of the economy, reduce the environmental burden of production systems and contribute to a more sustainable society.

At a global level, transitioning to the circular economic model is key to progressing towards implementing the 2030 Agenda for Sustainable Development and to achieving eleven out of the seventeen Sustainable Development Goals (SDGs).¹⁶ At the same time, this transformation is important for reaching the climate goals set by the **Paris Agreement.**¹⁷ The goal of the agreement is to limit global warming to well below 2°C and preferably to 1.5°C, relative to pre-industrial levels, thus aiming to reduce greenhouse gas emissions as soon as possible to achieve a climate neutral world by mid-century.¹⁸ As such, the transition to the circular economy has become recognized as not merely a choice but a necessity for all stakeholders across the world.

Many countries are embarking on the circular transition journey by developing national roadmaps, strategies and action plans and by setting concrete targets to push this transition forward. Pioneers in developing circular economy roadmaps and strategies include Finland and other Nordic countries, Slovenia, and the Netherlands. An initiative to foster collaboration and accelerate the transition at a global level is the development of the **Global Circular Economy Roadmap** (led by Chatham House), which was the outcome of the recent Stockholm+50 event which elevated circular economy ideas and solutions, putting the circular economy on the global environmental agenda.¹⁹ Such an initiative arose from the need for an open and transparent process that would enable an inclusive space for various stakeholders at a global level (avoiding complex multilateral structures), providing the opportunity to tackle common challenges collectively. This global roadmapping process is expected to lead to a global overview of the circular economy and a shared vision for the transition to circularity, to improve collective action, collaboration and information exchange.

Europe as a frontrunner in circular economy

At a global level, Europe is leading the way towards the circular transition and climate neutrality. The European Commission recently introduced a comprehensive set of actions, tools and strategies – known as the European Green Deal (EUGD) – with ambitious goals for 2030-2050, above all achieving climate neutrality by 2050, decoupling economic growth from resource use, leaving no one behind and promoting an inclusive society.²⁰ Some of the key components of EUGD include the Circular Economy Action Plan (CEAP), the "Fit for 55" package, and the New European Bauhaus initiative.

Prior to this, the EU Waste Framework Directive (WFD)²¹ laid down definitions related to waste management, including for waste, recycling and recovery. Then in 2017 the EU developed the CE Package

¹⁵ Kuch, "Building resilience: the impact of the circular economy on global trade and supply chains." Resilience can be described as the ability of a system (natural, social, economic, political, etc.) to mitigate or recover from a shock - e.g., a natural disaster, global pandemic, or an economic crisis. Therefore, the need for building resilience, from local towards global level, intertwines with the concept of the circular economy.

¹⁶ The eleven priority SDGs that are connected with the circular economy are based on the work of the joint publication of NL Netherlands Platform, Netherlands Enterprise Agency, Holland Circular Hotspot. Circular Economy & SDGs. How circular economy practices help to achieve the Sustainable Development Goals. For more details on the 2030 Agenda for Sustainable Development and the SDGS, please see: here

¹⁷ For the full text of the Paris Agreement, please see here.

¹⁸ United Nations Climate Change, *The Paris Agreement*.

¹⁹ Chatham House, Environment and Society Programme, A global roadmap for an inclusive circular economy: For Stockholm+50.

²⁰ European Commission, COMMUNICATION FROM THE COMMISSION - The European Green Deal.

²¹ European Commission, "Waste Framework Directive."

to stimulate the shift towards the circular economy.²² This package contains four legislative proposals on waste, which introduced four waste management targets regarding reuse, recycling and landfilling, and also strengthened provisions on waste prevention and extended producer responsibility (EPR). Also in the context of the CEAP, the European Circular Economy Stakeholder Platform (ECESP) was established in 2017 by the European Economic and Social Committee (EESC). In partnership with the European Commission, it is contributing to the implementation of CEAP. The European Circular Economy Stakeholder Platform, a network of networks, accordingly supports civil society organizations (hereafter 'CSOs') and public authorities to accelerate the transition to a circular economy across Europe by fostering dialogue and sharing knowledge.²³

The EUGD incorporates the SDGs from the UN 2030 Agenda, decarbonization and, at the same time, it underlines a social and ecological transition to a modern, digital and circular-economy society. Such society is **inclusive**, and every individual has an active role to play. The EUGD shows the ambition for **Europe to become the first climate-neutral continent by 2050 and to transition towards a circular society and economy**, which requires an aligned systemic approach and consistency in implementing EU policies to successfully achieve its targets.



²² European Parliament, Circular economy package: Four legislative proposals on waste.

²³ Godina Košir, and Cutaia, Laura, "Circular Economy Stakeholder Platform: the ECESP model."

As part of the EUGD, the European Union has developed several programmes and initiatives to boost the sustainable development and implementation of circular economy, indicated on the diagram below.

Circular Economy Action Plan (CEAP) The EU adopted the Circular Economy Action Plan (CEAP) in March 2020. The CEAP is a future-oriented agenda for regulatory harmonization, streamlining and synchronization of legislative activities. Such activities include: sustainable productivity, key value chain products, a shift from waste to resource management – with less waste and more value, monitoring the progress of activities as well as crosscutting actions for climate mitigation, decarbonization and energy transition.

"Fit for 55" package Under the "Fit for 55" package, the EU is drawing up climate, energy, land use, transport and taxation policies aimed at reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels, to bring them into line with the targets agreed in the European Climate Law. Thus, the package is a comprehensive and interconnected set of legislation with the intention of accelerating the reduction of greenhouse gas emissions.

New European Bauhaus initiative The EUGD is tied with the New European Bauhaus initiative that aims to bring cultural and creative dimensions to stimulate a growing movement. In particular, it promotes the way sustainable innovation can offer tangible improvements to everyday lifestyles, focusing on sustainability, aesthetics and inclusion.

EU Taxonomy Regulation The EU Taxonomy Regulation entered into force on 12 July 2020 and plays a very important factor in the transition to a sustainable economy. The purpose of the EU Taxonomy is to translate the climate and environmental objectives from the EUGD into clear criteria for green activities of investors and companies. It is a common economic frame of reference to support the efforts in the financing of projects that are already sustainable or that are in transition, thus preventing greenwashing.

Waste Framework
Directive

The EU Waste Framework Directive (WFD) was implemented to protect the environment and human health from hazardous substances during waste processing and reintroduce reusable materials to the supply chain. It sets the basic concepts and definitions related to waste management, including definitions of waste, recycling and recovery.

The Farm-to-Fork Strategy The Farm to Fork Strategy promotes local and short value chains for the agrifood system. It has also set ambitious targets for the reduction in the use and risk of pesticides, while increasing organic farmland and food production. It targets systemically the food system by addressing the issue of soil and nutrient management.

EU Methane Strategy This specialized strategy aims to tackle climate change by setting targets to halve methane emissions by 2050.

EU Biodiversity Strategy The Biodiversity Strategy of the EU sets a set of targets and measures to increase and protect the natural biodiversity of European ecosystems, the amount of protected natural areas, and the amount of agricultural farming with high-biodiversity features as well as organic farming.

EU Climate law This is a legally binding tool of the EUGD framework, setting a legal target for reaching net zero greenhouse gas emissions by 2050.

In parallel with the policy actions tailoring the transition, the EU is also providing a financial framework to support such transition, including:

- The European Green Deal Investment Plan;²⁴
- The Just Transition Mechanism, making sure no one is left behind;²⁵
- Investing in a climate-neutral and circular economy.²⁶

Apart from the existing regulations and initiatives indicated above, there is a set of other forthcoming regulatory frameworks that the EU is adopting. They also refer to the circular economy and sustainability in general, and include:

- The Eco-design Directive;²⁷
- EU strategy for sustainable and circular textiles;²⁸
- Extended producer responsibility.²⁹

Momentum for circular economy in Kosovo and the region

Accelerating green and circular transition in the Western Balkans is not only crucial for halting climate change and biodiversity loss, but also a concrete step on the EU accession journey. In October 2020, the EU presented the **Green Agenda for the Western Balkans (GAWB),** including the Economic and Investment Plan for the Western Balkans (EIPWB).³⁰ The EIPWB is expected to mobilize approximately $\[\]$ 9 billion in grant funding³¹ and up to $\[\]$ 20 billion in guaranteed investments over the next ten years through grants and guarantee funds.³² This is a significant opportunity and a challenge for a new, innovative sustainable approach for the Western Balkans.

In particular, the EIPWB will focus on:³³

- 1. Infrastructure links for transport and energy connections, market integration and cros s-border trade in the region and with the EU;
- 2. Green and digital transition;
- 3. Competitiveness of the private sector with special attention to innovation.

 $^{^{24} \ \ \}text{European Commission. Sustainable Europe Investment Plan} \ \text{-} \ \textit{European Green Deal Investment Plan}.$

²⁵ European Commission. "The Just Transition Mechanism: making sure no one is left behind."

²⁶ European Commission. "Investing in a climate-neutral and circular economy."

European Commission. "Ecodesign for sustainable products."
 European Commission. "EU strategy for sustainable and circular textiles: To create a greener, more competitive textiles sector."

The European Organization for Packaging and the Environment (EUROPEN). "Extended Producer Responsibility."

³⁰ European Commission, An Economic and Investment Plan for the Western Balkans.

PA III as a key source of financial assistance for the region including EIP. For more information please see: Ibid, 1.

³² Ibid, 6.

³³ For more details, please see: Ibid, 23-28.

The Western Balkans region plays an important role in Europe's overall journey to becoming carbon-neutral by 2050, and the region's leaders confirmed their readiness to align with European climate targets as part of the EU accession process. On November 10 2020 they signed the Sofia Declaration on the Green Agenda for Western Balkans in Sofia, which emphasizes five key pillars: decarbonization; the circular economy; depollution; sustainable agriculture; and protection of nature and biodiversity.³⁴ As part of the Western Balkans, Kosovo also committed to the provision of the Sofia Declaration stating that the Western Balkans will work towards the 2050 target of a carbon-neutral continent together with the EU. 35 This will be achieved through mainstreaming a strict climate policy and reforming energy and transport sectors. In the context of Kosovo, the Ministry of Environment, Spatial Planning and Infrastructure (MESPI) has an important role in the overall process since many of the proposed actions in the declaration fall under its competences.

On 4 October 2021 in Sarajevo, Western Balkan leaders then signed the Action Plan for the Sofia Declaration, 36 which is one of the outputs of GAWB and represents a key tool for its implementation. The Action Plan serves as a leading document for future cooperation and planning for a transition to a circular economy in the Western Balkans. Accordingly, each Western Balkan country, including Kosovo, needs to develop a path to implement its own planned circular economy activities and define its potential priority sectors. Full implementation of this regional strategic document will facilitate regional development, while taking into account the needs of present and future generations. Furthermore, as the momentum for circular economy transition is rising, many of the Western Balkan countries have already undertaken important steps towards developing relevant strategic documents and implementing circular economy principles. For instance, Montenegro and Serbia developed their national circular economy roadmaps, while Bosnia and Herzegovina is in the final stage of the process. North Macedonia and Albania have recognized the need for a circular economy, and more concrete

activities are expected to follow in the future.

As for Kosovo, the circular economy roadmapping process can foster a comprehensive transition from linear to circular economy and lay the ground for a systemic transformation that will benefit citizens, the environment and the economy. The process is seen as a beacon of change that aims to bring together all relevant stakeholders - public institutions, international organizations, businesses, CSOs, academia and the general public - to ensure a successful and inclusive transformation process.

³⁴ Regional Cooperation Council, Sofia Declaration on the Green Agenda for the Western Balkans.

³⁵ Kosovo Climate Change Council - Technical Secretariat, The Climate Change Agenda: Donor Coordination - Mapping of on-going Projects and future plans to support the Kosovo Climate Change Agenda.

³⁶ Regional Cooperation Council, ACTION PLAN FOR THE IMPLEMENTATION OF THE SOFIA DECLARATION ON THE GREEN AGENDA FOR THE WESTERN BALKANS 2021-2030



Kosovo's circularity development

Understanding the importance of driving the transition to a circular economy, Kosovo has made distinct progress in gathering multiple stakeholders and stimulating cooperation and knowledge exchange to contribute to stronger climate action and implementation of circular economy practices. These activities include the following: establishment of the National Climate Change Council, development of the concept for the establishment of a Circular Economy Hub, development of strategic documents and guidelines that incorporate the concept of circular economy, and activities undertaken by the private sector, the community, and youth organizations in the field of sustainable development.

The National Climate Change Council was established in 2022 by Decision No. 07/54 of the Kosovo Government. The Council is responsible for ensuring the implementation of strategic documents and action plans related to climate change, in compliance with commitments within the framework of the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement and the Green Agenda for the Western Balkans. Kosovo remains committed to climate action and unilateral publication of its Nationally-Determined Contribution (NDC). The NDCs are at the core of the Paris Agreement and Kosovo has shown willingness to undertake the necessary actions when UNFCCC membership is granted.³⁷

All these climate commitments and environmental goals are closely interconnected with the circular economy transition, and therefore actions and progress in these fields need to be coherent and monitored at a national level. The National Climate Change Council and the Ministry of Environment, Spatial Planning and Infrastructure (MESPI) thus play an important role in the overall process of coordinating and supervising the relevant activities.

Other specific initiatives are reflected in the adoption of: the Law on Waste³⁸ which aims to adopt EU waste legislation; the Kosovo Integrated Waste Management Strategy for 2021-2030 and Action Plan 2021-2023; and the Strategy on Waste Management for 2013-2022 covering hazardous and non-hazardous waste. In particular, the recent amendment of the Law on Waste – no. 08/L-071 takes into account the importance of the circular economy and foresees the avoidance, reduction and prevention of waste in the environment. The Law introduces the principles of Extended Producer Responsibility (EPR) and the Deposit Refund System (DRS) and establishes the legal basis for EPR and DRS to be further regulated through secondary legislation.

Even though the majority of strategic documents do not refer to the circular economy or cover only its waste management components, there have been recent improvements in this sphere. For example, the Economic Reform Programme 2023-2025 has foreseen the drafting of a Circular Economy Roadmap, among other important complementary actions³⁹, as part of economic reform measure

³⁷ Kosovo Climate Change Council - Technical Secretariat, The Climate Change Agenda: Donor Coordination - Mapping of on -going Projects and future plans to support the Kosovo Climate Change Agenda.

Assembly of the Republic of Kosovo, "Law no. 08/L-071 on amending and supplementing the Law no. 04/L-060 on Waste."
 Key complementary actions of Economic Reform Programme measure no.7: drafting of the Long-Term Decarbonisation Strategy (MESPI, ME), drafting of the Strategy for Environmental Protection and Sustainable Development 2022-2031(MESPI,ME), drafting of the law on waters of Kosovo (MESPI), review and supplement of the National Water Strategy 2017-2036 (MES-PI), drafting of the Administrative Instruction on the competencies of the waste owner, producer and importer of the product (MESPI), drafting of the draft law on financing water resources management (MESPI).

No. 7 "Reducing environmental pollution and preserving biodiversity". Sectoral strategies such as the Strategy for Agriculture and Rural Development ⁴⁰ are starting to mention the circular economy and include its principles in a more detailed manner. It is evident that in recent years Kosovo has made progress in developing more comprehensive policy documents. Some of the strategies that have been developed (e.g. Economic Reform Programme, Integrated Waste Management Strategy) include integrated action plans with clear actions and qualitative and quantitative indicators for the monitoring of progress. These policies have been gradually including a more systemic view; however, a higher degree of inclusion of circular economy principles is needed.

In the short term, there are current and expected efforts towards the drafting of key policy documents; these will be complementary to the roadmap and can enable the circular transition if circular economy aspects are addressed (for more information please see Appendix 2).

Analysis shows that some circular economy principles are included to a limited extent in Kosovo's main strategic documents. But the country is now at a crossroads in the development towards circularity; the "current" state of play is only the starting point, as is apparent on the figure below. 41

Circular principles in Kosovo's strategic documents

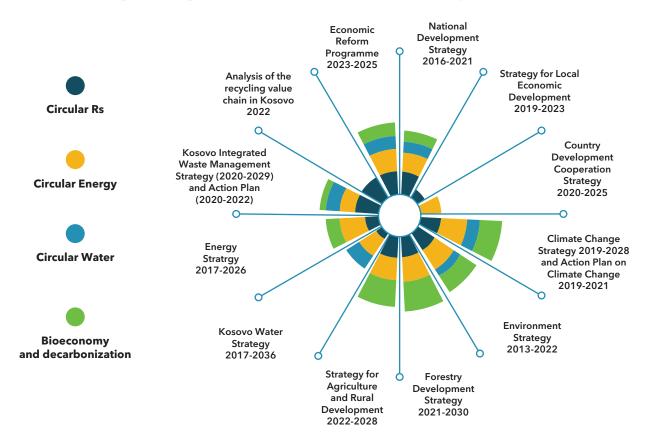


Figure 3: Analysis of the current state of play of Kosovo in terms of circularity principles covered in Kosovo's strategic documents

Source: Deloitte and Circular Change

⁴⁰ Official name of the document: Ministry of Agriculture and Rural Development, National Strategy for Agriculture and Rural Development 2022-2028.

⁴¹ For more information on the methodology used for assessing the inclusion of circularity in strategic documents and of the level of coverage of circular economy principles, please see Appendix 2. The circular economy principles outlined as not being covered in the strategy below and in policy documents are also further elaborated as current institutional challenges within the stakeholder analysis.

Network governance

The unique position of the Government to lead and influence the transition to the circular economy through a top-down approach plays an important part in Kosovo's efforts towards a more circular and sustainable economy, livelihood, and environment. However, the systemic nature of the circular transition can only be addressed by working on all fronts, and therefore bottom-up support from industry, civil society and the community is needed. This is a foundation of network governance, by which no stakeholder can implement the circular economy alone, and all actors should participate to make change happen. Network governance means the orchestration of the actions and stakeholders of such a network, and thus plays a significant role in the circular economy transition process.⁴²



Figure 4: The role of Network governance Source: Jacqueline Cramer (2022).⁴³ Adapted by Deloitte and Circular Change

Drawing on the importance of network governance in the circular economy transition, the visual below represents a summary of the most noteworthy recent projects, initiatives and events to do with the circular economy in Kosovo; these have set the course for the transition agenda.

⁴² Jacqueline Cramer (2022). Building a Circular Future: Ten Takeaways for Global Changemakers.

⁴³ Jacqueline Cramer (2022). How Network Governance Powers the Circular Economy: Ten Takeaways for Global Changemakers

Kosovo Sustainable Development Week

In its 5th edition, the KSDW covered multiple topics such as: Plastic Pollution and Circular Economy: Kosovo initiatives in a global perspective; The role of chambers of commerce, industry and trade associations in accelerating the shift towards circular economy; **Development of Circular Economy Roadmap.**



Global Entrepreneurship Week Kosovo - launching of the **study on circular economy** perceptions and knowledge.

Manifesta 14

initiative focused on the creative power of the youth in Kosovo and is bridging sustainability with creativity.



Mainstreaming circular economy in the private sector of Kosovo

Kosovo Chamber of Commerce has started the implemention of the project "Mainstreaming circular economy in the private sector of Kosovo", co-funded by the EU and the German Federal Ministry for Economic Cooperation and Development as part of the 'Sustainable Municipal Services' project, which is implemented by GIZ Kosovo. In September 2022, a report on a Study of the recycling sector value chains was punlished, contributing to increasing traceability and data availability.





Autostrada Biennale Kosovo promotes & nurtures creative ideas and talent towards sustainability & inclusiveness, merges art with education.



The project is supported by GIZ as part of the "Sustainable Municipal Services", which itself is co-funded by the EU and the German Federal Ministry for Economic Cooperation and Development. The project will raise public awareness on Circular Economy within Kosovo, trigger and advance sustainable thinking, and identify possible cooperation and investment.



Cirkonomia - First national Circular Economy conference in Kosovo

Hosted by KosovaLive, the conference gathered representatives from civil society in Kosovo and the region, academia, private sector representatives and students to inform and raise awareness about the concept of circular economy, and the collective and individual responsibilities to spur its development.



by Advocay Training and Resource Centrefounded by the EU.

The Innovation Centre Kosovo has formed a **Circular Coalition of Kosova** a grassroots initiative of business community, startups, NGOs, donors, experts, innovators and institutions, to further circular economy sustainability, upcycling, recycling and address challenges of the future.



GREEN CROSS - Towards Local Green Economies with Smart Investments

The project funded by the European Union and implemented by Balkan Green Foundation, Qendra EDEN/EDEN Center, Municipality of Has and Municipality of Klina.

SEREC - projectimplemented by the Let's Do It Peja and supported by the EU Office in Kosovo

Engaging in various activities based on the concepts of circular economy, the Project aims to support the development of social entrepreneurship in Peja, and to support the growth of employment of marginalized groups, mainly women and youth. One of the main activities of the project is the collection and reprocessing of materials and textile apparel.



GIZ engaged in the process for the establishment of Extended Producer Responsibility schemes and the Deposit Refund System.

Closing the Loop around the world - CGL Annual event - **case studies** of glass collection and recycling **from Kosovo.**



Circular Economy: A way forward conference

Organized by LogEx at the Universum College as part of the Western Balkans Circular Economy Week - a partnership between 8 universities, civil society, and business actors from all Western Balkan countries. Some of the initiatives covered in Kosovo are:

Environmental Activism in the Western Balkan region and Sustainable Fashion Festival.

Green Action Space (GAS) - a joint initiative of the Kosovo Foundation for Open Society (KFOS) and Riinvest Institute that serves as a platform to better inform the public on circular economy, environmental issues and sustainable development in the context of the green agenda through lectures, research, debates and advocacy.

The context of Kosovo and its stakeholders

The stakeholder assessment below examines the main stakeholder strengths and challenges. It helps an understanding of the positive steps that Kosovo has made towards the circular economy transition, but also highlights the challenges that each stakeholder is facing to fully embark on proactive changes within their respective domains.



Public administration, institutions and international organizations



Strengths

- There has been substantial improvement of policy and strategic documents in the last 10 years.
- Kosovo institutions have included the circular economy among the priorities in promoting sustainable development.⁴⁴
- The Government has structured economic reforms with overarching objectives in several areas of the economy and society, ranging from education and labor, to environment, transport and infrastructure, energy and agriculture.⁴⁵
- Extended Producer Responsibility (hereafter EPR) scheme preparations are planned to run throughout 2023 for some of the fractions of municipal waste (Waste Electric and Electronic Equipment, Waste batteries and accumulators, and waste oils). The Law on Waste introduces a legal base for EPR to then be further regulated through secondary legislation.⁴⁶
- With the Law on Waste No. 08/L-071, there has been a noticeable legislative improvement to enable the implementation of the Deposit Refund System (DRS), followed by engagement and efforts from the international donor organization network.⁴⁷
- By signing the Sofia Declaration on the Green Agenda for the Western Balkans, Kosovo pledged to increase administrative capacities to support the implementation and enforcement of EU sustainability priorities.⁴⁸
- The government of Kosovo has established the inter-ministerial National Climate Change Council to support further steps and actions in the area of Climate Change.⁴⁹
- Following the ERP 2022-2024, Kosovo plans on drafting several strategies that can potentially enable the circular economy.⁵⁰
- The government of Kosovo is currently drafting an Industrial Development Strategy which plans to have a dedicated focus on the circular economy in the context of development of circular and green industry for the manufacturing sector.
- Kosovo is in the phase of negotiating for greenhouse gas emissions reduction targets and in 2023
 Kosovo plans to submit the first draft of the National Energy and Climate Plans (NECP).⁵¹

⁴⁴ Reform measure no.7 of the Economic Reform Programme foresees the realization of a Circular Economy Roadmap.

⁴⁵ Economic Reform Programme 2022-2024

⁴⁶ GAZETTE OF THE REPUBLIC OF KOSOVO, LAW NO. 08/L-071 ON AMENDING AND SUPPLEMENTING THE LAW NO.04/L-060 ON WASTE, OFFICIAL.

⁴⁷ Ibid. Stakeholder engagement activity - interview with GIZ.

⁴⁸ All signees of Sofia Declarations have pledged to enhance administrative capacities for the implementation of environmental obligations for monitoring, promoting and implementing compliance with EU priorities on sustainability. Sources: "Sofia Declaration on the Green Agenda for the Western Balkans." 17 May 2018.

⁴⁹ Kosovo Climate Change Council - Technical Secretariat, The Climate Change Agenda: Donor Coordination - Mapping of on-going Projects and future plans to support the Kosovo Climate Change Agenda.

⁵⁰ For more information see the Economic Reform Programme 2022-2024

⁵¹ Ministry of Environment, Spatial Planning and Infrastructure, Donor Coordination - Mapping of on-going Projects and future plans to support the Kosovo Climate Change Agenda.

- A new Energy Strategy 2022-2031 has been recently approved by the Kosovo government, laying down foundations for a cleaner and more efficient energy sector.⁵²
- There is a high level of collaboration with international organizations and donors from different parts of the world (EU, EBRD, GIZ, JICA, AmCham and USAID, etc.).
 Hydropower, solar energy, solid biomass and other forms of biomass, wind power, and biofuels are recognized as potential Renewable Energy Sources (hereafter RES) for transport and consumption. ⁵³
- The Forestry Strategy has identified as a priority the improvement of inter-institutional, regional and international cooperation and membership in relevant networks and organizations.

C

Challenges

- Low level of awareness and understanding of the circular economy paradigm/model (especially the priority processes that the circular economy defines) among decision-makers.
- When the circular economy is mentioned in Kosovo policy documents, it is addressed mainly in terms of waste management.
- Although currently there is a lack of policy documents with a clear establishment of priority areas for the economic development of Kosovo, it is envisioned that the new National Development Strategy 2030 that is under preparation should address this.
- Lack of policy harmonization, coordination, clear roles and responsibilities among institutions, leading to overlapping and inefficiencies.
- Limited institutional capacity and a lower level of stakeholder engagement.
- Limited availability of public funding and public finance constraints that are further accentuated by the inflation.
- Despite the policy improvement, there is a low level of implementation of policy requirements/obligations and lack of enforcement (i.e. waste management, construction, forestry, agriculture etc.).
- The informal economy in various sectors leads to lack of traceability of materials, resources, finances, employment etc.
- The monitoring systems of Kosovo are insufficiently developed and lack integration to address the systemic challenges of the circular economy. Thus, they hinder the identification of circular hotspots and points of action.
- The usage of words in official strategies such as the Kosovo Integrated Waste Management Strategy, is not fully aligned with the EU Waste Policy Framework, some key definitions are missing, and the waste management framework remains incomplete.⁵⁴
- Lack of End-of-Waste criteria,⁵⁵ definition of actors along the value chain, waste classification nomenclature, and byproduct definitions.
- Lack of connected and open statistical data to monitor unutilized resources.

53 Ministry of Economic Development. Energy Strategy of the Republic of Kosovo 2017-2026.

⁵² EURACTIV. "Kosovo approves renewables-focused energy strategy."

The integrated Waste Management Strategy doesn't include the definitions of important terms such as "byproduct", waste management stakeholders ("producer", "owner", etc.), among others. The definition of waste could be more precise including the case where the waste producer is obliged or required to dispose of the substance or product. A good reference is the EU Waste Management Framework.

End-of-waste criteria specify when certain waste ceases to be waste and becomes a product, or a secondary raw material, Source: European Commission. "Waste Framework Directive."

⁵⁶ Feedback obtained through Working Group meeting in person.





Strengths

- Vibrant start-up scene in the sustainability and creativity fields.
- Kosovo currently participates in the Creative Europe programme,⁵⁷ as a partner, thus the companies from creative sector can leverage international support through funding, projects and other initiatives.
- Businesses are implementing some of the circular economy principles realizing that circular choices can support them in long-term sustainability, economic benefits and resilience.
- Despite the lack of a developed waste management system, there is evident collaboration among some businesses to jointly find solutions to tackle the issue.⁵⁸
- Increasing acknowledgment of the importance of multi-stakeholder cooperation.
- Growth and development of IT and digitalization are recognized as a horizontal sector that can enable not only the modernization of other economic sectors of Kosovo, but also their circularity and innovation.
- Relative availability of funding opportunities due to the strong presence of international donors. Financial support measures are included in some of the key policy documents.⁵⁹
- The Economic Reform Programme includes dedicated reforms to improve the business environment: reform measure no. 9 for "Improving the doing business environment by reducing the administrative burden, inspection reform" with tailored actions for 2022, 2023, and 2024, and reform measure no. 11 "Improving the environment for research, innovation, and entrepreneurship.



Challenges

- Low level of awareness about the circular economy principles and business models from which businesses could benefit, how they could benefit and what can be their overall impact and cost.⁶⁰
- Lack of infrastructure, a developed waste management system, and missing policy tools hinder the implementation of circular economy solutions in businesses.⁶¹
- Lack of expertise in businesses and the Kosovo job market regarding the circular economy needs, challenges and solutions.
- Prevailing need for access to finance and capital investors for the startup ecosystem.⁶²
- Lack of circular consumer culture that would articulate market requirements and trigger substantial changes from the private sector.
- Mismatch between the education system (the education system as whole, including all its components) and its curricula, and business challenges and needs.
- Low level of collaboration among all stakeholders hindering the development of circular value chains (exchange and synergies of knowledge, expertise, resources and energy).

European Commission. "About the Creative Europe Programme."

⁵⁸ Second stakeholder workshop. Stakeholder interviews (Bonevet, Termokiss, Kosovo Glass Recycling Company, REKS and KIVO.)

⁵⁹ Forestry Development Strategy, Economic Reform Programme, National Strategy for Agriculture and Rural Development.

⁶⁰ This has been noted as one of the main challenges by businesses and other stakeholders.

⁶¹ Balkan Green Foundation. Roadmap of Green Entrepreneurship Ecosystem in the Western Balkans.

⁶² This has been noted as one of the main challenges by businesses and other stakeholders.

- Low availability of raw materials and high economic dependency on imports evident through high trade deficit.
- Dependency on external factors effecting energy prices, unstable energy supply and missing reliable pricing in energy and water areas.
- The investment and technological cost of some circular solutions can be relatively high, especially for small businesses.
- Market is characterized mainly by micro, small and medium enterprises.
- Poor resource traceability and resource management practices challenge the identification of areas for circular actions to be taken.
- Fear of reduced market competitiveness among businesses if only a portion of businesses invest financially in circular business operations and practices.
- Weak regional industry cooperation and lack of public-private cooperation.
- Lack of progress toward creating a legal framework to foster green businesses.





Strengths

- Well positioned CSO network in advocating for circular transformation among people of Kosovo and seeking support from the government to demand change in regulations.
- Young people's awareness has been improved by high exposure to global trends of sustainability.
- Engagement efforts of CSO organizations in the field of environmental issues and sustainable development in the context of the green agenda, delivered through lectures - Green Schools, research, debates and advocacy - Green Talks.⁶³
- Increased efforts in raising awareness and building knowledge of the people of Kosovo on environmental sustainability through areas such as food waste, composting, permaculture applications etc.⁶⁴
- Increased awareness and better habits among people of Kosovo employed in the private sector businesses that have internal policies and implement circular practices.
- Younger customers prone to follow global trends and start demanding responsible production, thus driving new market trends and supporting CSOs to advocate for people of Kosovo and raise issues around collective demands.
- Successful initiatives of youth involvement and engagement in activities tailored to raise awareness and educate.

⁶³ RIINVEST, "Green Action Space". Circular economy is one of the aspects of the lectures and panel discussions.

⁶⁴ Civil Society Organizations, interviews by Deloitte and Circular Change, online, July-August 2022.



- Lack of funding, support, and effective dialogue with the institutions to initiate larger-scale projects that would improve and build towards a critical mass of awareness.⁶⁵
- The limited number of CSOs working in the sector of environmental sustainability and thus the limited capacities further hinder efforts to reach out to a critical mass of the people of Kosovo.
- Challenges with finding partners who trust new project concept from the CSO network and are ready to support it.
- Lengthy bureaucratic procedures and processes to obtain funding that is needed to implement projects.
- Lack of consumer education on their consumer rights to be able to dictate the terms of their relationship with the private sector, for which the CSO network advocates.⁶⁶
- Unsustainable consumer habits, growing consumerism and prejudice among the general public about the purchase of second-hand/repaired products hinders CSOs' efforts to educate consumers on the need for more sustainable consumer practices.



Academia and Research



Strengths

- The education system is addressed by the Economic Reform Programme with targeted reform measures in the direction of increasing education quality which is in synergy with the need for circular economy expertise in Kosovo.⁶⁷
- The universities are building regional connections to stimulate regional dialogue, awareness raising and knowledge building on the concept of circular economy and showcase regional good practices.⁶⁸
- Start-up programmes from educational institutions are available and have been producing circular and sustainability frontrunners, especially among the young people.
- The ecosystems for sustainability-targeted problem-solving and practice-based learning for students have already shown some progress.⁶⁹
- Private education institutions collaborate with renowned international organizations in research and education programmes and projects.
- Informal education initiatives are pioneering in the field of sustainability and development of youth potential (sustainability, reusing and transforming waste, food and foodwaste, social innovation, awareness raising, etc.) collaborating with businesses and creative sector stakeholders.

 $^{^{\}rm 65}$ CSO, interviews by Deloitte and Circular Change, online, July-August 2022.

⁶⁶ Private-sector companies, interviews by Deloitte and Circular Change, online, July-August 2022.

⁶⁷ Actions foreseen include: drafting and approval of a law on higher education, capacity building, connecting education at Higher education and VET to the needs of the market, harmonization of HEI statutes, standards for STEM HEI programmes and harmonization of bylaws on higher education.

⁶⁸ LogEx Community has organized the first "Circular Economy Week" in the Western Balkan countries. More information available here: Western Balkans Circular Economy Week.

⁶⁹ Rine Fetahu and Leke Zherka, Bonevet, interview by Marco Segovia Bifarini, online, July 25, 2022. Edmond Hajrizi, UBT, interview by Marco Segovia Bifarini and Sema Čorbo-Lindov, online, July 21, 2022.

Challenges

- Sustainability and circularity are not included in key education verticals, including some of the verticals related to the priority areas identified by this roadmap.
- The high unemployment and undeclared work in Kosovo's economic sectors can counter the development of the education system and increase the loss of talents, knowledge, ideas and workforce due to increased migration to foreign countries.⁷⁰
- Kosovo's formal education system has limited quality assurance mechanisms at all education levels.
- Low level of collaboration with businesses or business platforms to increase the connectivity, facilitate innovation and knowledge transfer, and fill the gap and skill mismatch between education and business.
- Public expenditure on education is limited (4.7% of GDP).⁷¹
- Low inclusion of children in preschool education and inclusion of students of marginalized groups.
- The VET national programme falls under the responsibility of several public institutions, currently lacking coordination to achieve full potential.
- The quality of education remains poor, as evidenced by the last two OECD Programme for International Student Assessment (PISA) evaluations, with Kosovo ranking third from the bottom.⁷²
- Lack of financial support from the public institutions towards implementation of innovative ideas that emerge from university ideation initiatives.
- Low level of regional collaboration among educational institutions.



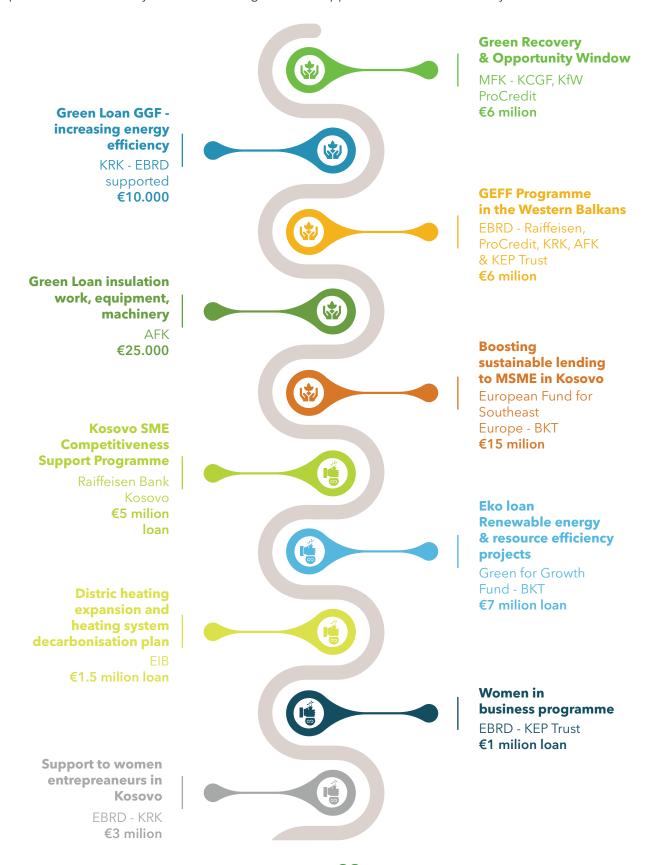
 $^{^{70}}$ Regional Cooperation Council. Diagnostic Report on undeclared work in Kosovo.

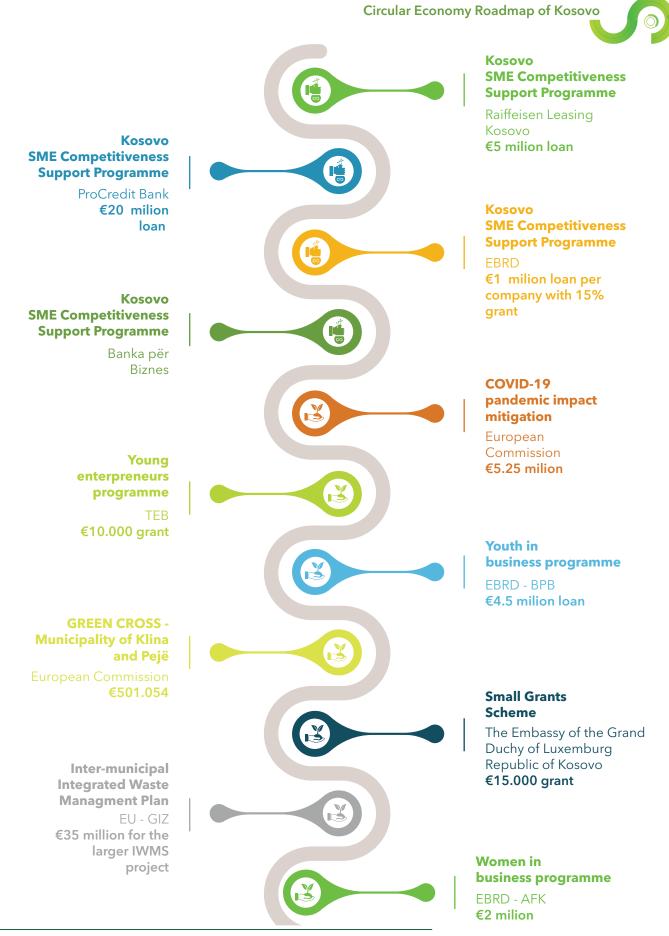
⁷¹ European Commission. Kosovo 2021 Country Report. The value is below EU average (5.0%) and far below from the best performing countries in the EU (Sweden is the best performing country with a public expenditure on education over 7%) Source: Eurostat.

⁷² European Commission. Kosovo 2021 Country Report.

Financial dialogue

The financial opportunities for all stakeholders interested in embarking on a circular economy transition are presented below. They cover the existing financial support tools as of 16 February 2023. 73





⁷³ For more details regarding the specific conditions, please refer to Appendix 3. Please note that this list of financial sources is non-exhaustive: it serves solely the illustrative purpose of representing the currently selected set of projects and is subject to change in future months. For details on how to apply, please visit each organization's website.





In search for potential to make Kosovo circular

Circular economy transition is always a complex and long-term process. The process of finding the first entry points for the circular transition of Kosovo and the development of the circular economy roadmap for Kosovo followed several steps. The vision of a circular future for Kosovo, highlighted below, emerged from a literature review, enhanced by data gathering through a questionnaire and multiple stakeholder engagement activities (see Appendix 1 for the full journey overview), including with key stakeholders who were part of the Working Group.

A green, healthy and prosperous future of Kosovo, grounded in its rich natural and human potentials, is attainable only with a regenerative mindset and systemic endeavors. We want to witness the circular transformation of a Kosovo that nurtures creativity and innovation and creates a safe environment for the continuous sustainable development of present and future generations.

The process then identified six priority areas for the circular transition of Kosovo. The priority areas were identified through data analysis of economic importance (contribution to GDP, Gross Value Added (GVA), employment and productivity) and circular potential (waste management, resource (solid and water resources) and energy intensiveness). The data was integrated with quantitative-qualitative information gained from 75+ key stakeholders (businesses, public institutions, international donors, NGOs, and educational institutions). The inclusion and integration of the sectors in key policy and strategic documents was also considered.

The six identified areas of Kosovo's economy are the Food System, the Forest System, the Manufacturing Sector, the Built Environment, the Creative Sector, and the Retail Sector.



Figure 5: A visual representation of Kosovo's priority areas with the highest circularity potential Source: Deloitte and Circular Change

⁷⁴ Data availability for evaluating Kosovo's circular potential - such as renewable and overall energy consumption, landfilled and recycled waste, water consumption and material costs per each economic sector - is still limited. Stakeholders' contributions and qualitative inputs were essential for the roadmap process.

The food and the forest systems belong to the **Circular Bioeconomy** (the biological component of the circular economy), while the manufacturing sector and built environment belong to the **Technosphere** of the circular economy. These four areas are **supported and enabled** by the remaining two priority areas: the creative sector **empowers and supports** them with ideas and innovation, while the retail sector enables them by being a **driving force** as their direct link with the **circular demand** of the population.

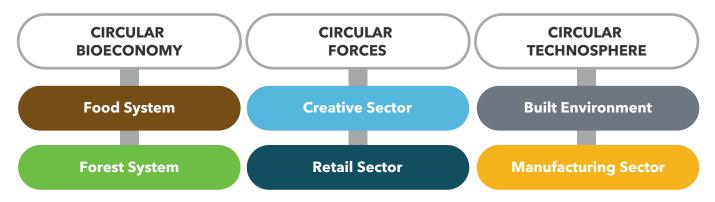


Figure 6: A classification of key priority areas that belong to Kosovo's circular economy system
Source: Deloitte and Circular Change

Horizontal areas that enable circular transition



Figure 7: The seven horizontal areas of the circular economy of Kosovo Source: Deloitte and Circular Change



Education - sustainable and circular practices

Education is fundamental to society, businesses and all the stakeholders of Kosovo. Given the systemic nature of the circular economy, circular principles and sustainability need to be integrated and included **horizontally** across disciplines and **vertically** through all levels of education. They should become a part of a life-long learning process. In general, business and public sector reskilling programmes, as well as general public awareness-raising campaigns, contribute to the creation of a circular business environment and a **circular culture**. This can support a **workforce** that is ready and able to address the challenges of the circular transition, as well as a population fostering the circular transition through their everyday actions in the direction of circular and sustainable demand. Circular economy opportunities also promote the creation of **green jobs**.



Green Public Procurement

Green public procurement (GPP) can become a powerful tool for the circular transition in Kosovo and a common opportunity for the priority areas (circular products and services, circular and local food, etc.). Higher awareness and increased knowledge are needed in the public sector to provide proper implementation of green public procurement. Efficient GPP in Kosovo needs an improved monitoring framework of businesses, business practices and resources, as well as methodologies to measure the circularity and sustainability of products and services. GPP could spark further actions and initiatives in the private sector to create and develop circular businesses. It can also be a powerful tool for setting up the horizontal infrastructure and measures needed. Public support and appropriate guidelines would be needed.



Digitalization and ICT

Kosovo is facing a lack of data and information - valuable resources for its transition to the circular economy. This is most evident in the lack of available data for and monitoring of renewable and overall energy consumption, landfilled and recycled waste, water consumption and material costs per each economic sector. Therefore, an effective and successful circular economy in Kosovo can only be achieved with the support of a comprehensive data and monitoring framework based on harmonized international standards, instead of what is currently fragmented and not fully developed. It must also be able to target different sectors, aspects and parameters of the economy at national, regional, municipal and local levels. A national monitoring system can help optimize processes and resources. Data and information can enable the mapping of resource flows, supporting the identification of leverage points for action, inefficiencies and incongruities, and thus allowing full closure of the loops. Furthermore, as part of the proposed Ecodesign for Sustainable Products Regulation and one of the key actions under the Circular Economy Action Plan, introduction of a Digital Product Passport in certain sectors (manufacturing, construction, etc.) would enable easier traceability, repairability and recycling of products. Data availability and traceability are supported by collaboration between public and private stakeholders. Joint private-public and business-led efforts are needed to boost a data culture. Digitalization and a data culture can enhance traceability and transparency and at the same time promote a twin transition, 75 both circular and digital. Finally, increased digitalization in homes can become a key enabler of green and digital solutions for the general public.

⁷⁵ Twin transition meaning the joint green and digital transitions. Source: Joint Research Centre, Towards a green and digital future.



Energy

All sectors are dependent on the consumption of energy and/or fuels. Kosovo is highly dependent on imports of energy resources and the global energy market. This affects the vulnerability and energy security of Kosovo. Moreover, the current coal-fired power plants release a variety of pollutants that contribute to air and water pollution and damage agricultural production and biodiversity, causing significant adverse environmental and health impacts. Therefore, energy is one of the key horizontal areas that would contribute to Kosovo's journey in its circular transition. In order for a circular economy to be fully regenerative, the energy and fuels that are used have to be produced from renewable sources. Some circular processes to be introduced in priority areas for Kosovo (see section below on priority areas) can yield renewable energy and the development of circular energy systems, diversification of the energy mix, self-sufficiency, and energy-efficient and energy-saving systems.



Waste Management

According to data from 2013, the waste sector in Kosovo causes about 5% of greenhouse gas emissions;⁷⁷ such is the consequence of disposal of waste in illegal landfills. A circular economy cannot be achieved without a **proper waste management system** in place. Currently, in Kosovo only the lowest levels of the Rs⁷⁸ (mainly waste collection, partial waste source separation, recycling) of the circular economy are being implemented. The system should be based upon all the circular principles, going **beyond recycling.** With a systemic approach, the waste management system in Kosovo could successfully shift from waste to holistic **resource management.** Such a shift can contribute to improving the degree of circularity of Kosovo's economy, reduce the waste burden, increase green jobs, and foster a market and local supply of secondary raw materials and products. The inability to properly address the **waste management system** as a whole may hinder circular solutions and the circular transition. Some positive first steps currently happening are the development of DRS and EPR.

Therefore, a coordinated improvement of sustainable supporting infrastructure and logistics would be key to ensure the proper flow of secondary raw materials and second-life products and components. This system should not be isolated but rather connected with businesses and research and policy, fostering innovation, modernization, knowledge transfer, and industrial symbiosis. The effectiveness of the system would benefit from further development of a data culture to enable the mapping and monitoring of flows and resources.



Water Management

Complete circularity can only be achieved by ensuring the circularity of water resources through **circular and sustainable water management.**⁷⁹ Some areas in Kosovo are currently threatened by water scarcity and climate change. Therefore, Kosovo would require integrated water management systems addressing both water supply and wastewater treatment in the whole territory. Such systems should be based upon practices that foster

⁷⁶ Circular energy transition and circular energy systems as defined in: European Commission, Revision of EU Energy Directive; Metabolic, TOWARDS A CIRCULAR ENERGY TRANSITION: Exploring solutions to mitigate surging demand for critical metals in the energy transition.

Ministry of Environment and Spatial Planning, Kosovo Environmental Protection Agency, Annual report on the state of the environment for 2020.

⁷⁸ 9 Rs of the circular economy: Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle and Recover.

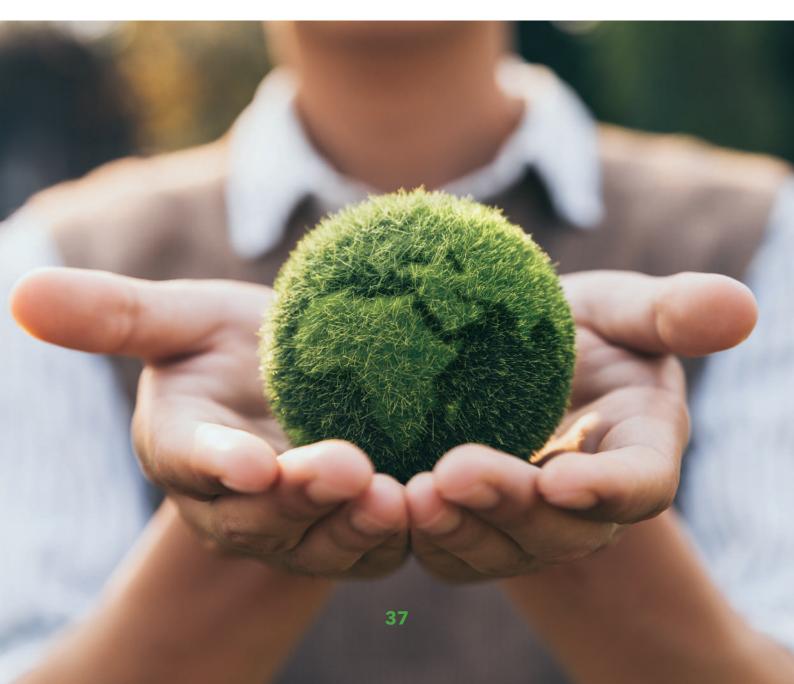
⁷⁹ European Commission, Water in the circular economy policy development: workshop report with findings from demo cases of Horizon 2020 projects.

circular water management, reuse, treatment to reuse, water saving and water efficiency practices. Hence, circular water management practices in Kosovo would help in addressing climate change mitigation and adaptation. At the same time, water ecosystems and water bodies in Kosovo should be protected from pollution and overconsumption.



Transport

A circular transport system that fosters connectivity and sustainable logistics is highly important for a circular transition in Kosovo. This includes circular mobility solutions such as sharing mobility, intermodality and sustainable public transport. The whole infrastructure should be adjusted, with proper spatial planning and long-term investment. Circular transport also promotes the maintenance of vehicles and equipment to extend their lifecycle - through solutions such as repairing, refurbishing, remanufacturing and recycling of components. Complementary actions are needed for the development of sustainable rural infrastructure that can increase rural accessibility, urban-rural connectivity and rural development.



Priority sectors

Kosovo's Circular Bioeconomy System

The Circular Bioeconomy corresponds to the **biobased component** of the circular economy, which includes all the sectors producing goods that have a biological origin such as food, wood, paper, biogas, and advanced biobased chemicals and materials. ⁸⁰



The Food System

The food system as defined in this roadmap includes the following economic sectors along the food value chain: agriculture, fisheries, aquaculture, food processing, and production. Kosovo has a timeless tradition of food engraved in its culture and these sectors are important foundations of its culture, heritage, and society.

The economic sectors of the food system also have significant **economic importance** and there is relatively large availability of agricultural and arable land and biodiversity. However, in spite of its potential, Kosovo's food system is characterized by intensive agricultural practices. Kosovo's food system is highly dependent on imports of fertilizers and raw materials needed for agriculture and food production, but also on equipment, machinery, technology and other complementary materials (e.g. materials for food packaging). There is also a significant need for modernization. Most businesses and farmers are small and the sectors are characterized by strong fragmentation. The government of Kosovo has addressed agriculture and food production through a specific reform measure in the Economic Reform Programme⁸¹ and the food system is directly addressed by the National Strategy for Agriculture and Rural Development,82 as well as being included in several other policy documents (see Appendix 2).

Agricultural products represent more than **24%** of the total imports in Kosovo.

Source: Climate Change Strategy 2019-2028 and Action Plan on Climate Change 2019-2021

Agriculture contributes to 11% of GDP and accounts for 26% employment and 16% of the value of local exports.

Total agricultural land is **43%** 80% of which is arable 14% is meadows and pastures

Source: Climate Change Strategy 2019-2028 and Action Plan on Climate Change 2019-2021

⁸⁰ Advanced biobased chemicals and materials; Source: The BIOEAST Foresight Exercise: Sustainable bioeconomies 2030 towards 2050.

⁸¹ Government of Kosovo. *Economic Reform Programme 2023-2025*, reform measure no.15 "Structural changes in the agricultural sector" Key actions targeting agriculture:

⁻Drafting the legal basis for the Development of the Agricultural Insurance Fund and its funcitonalization

⁻ Increasing areas with agricultural crops with a focus on value-added products

⁻ Drafting the national plan for the Inventory of Agricultural Lands of the Republic of Kosovo

⁻ Feasibility study of irrigation projects based on the Master Plan for irrigation of agricultural lands

⁻ Common Market Organization (CMO) for agricultural products

⁻ Introduction of the ADA accreditation package

⁸² Ministry of Agriculture, Forestry and Rural Development. National Strategy for Agriculture and Rural Development 2022-2028.

Healthy food is vital for a healthy society. The **biowaste streams and byproducts** of this sector have a large potential for circularity. The food sector has been an important contributor to Kosovo's GHG emissions (the agriculture sector contributes to 6% of Kosovo's emissions),⁸³ which is why circular action can have a great impact on **climate change mitigation and decarbonization.**

What does a circular food system look like?

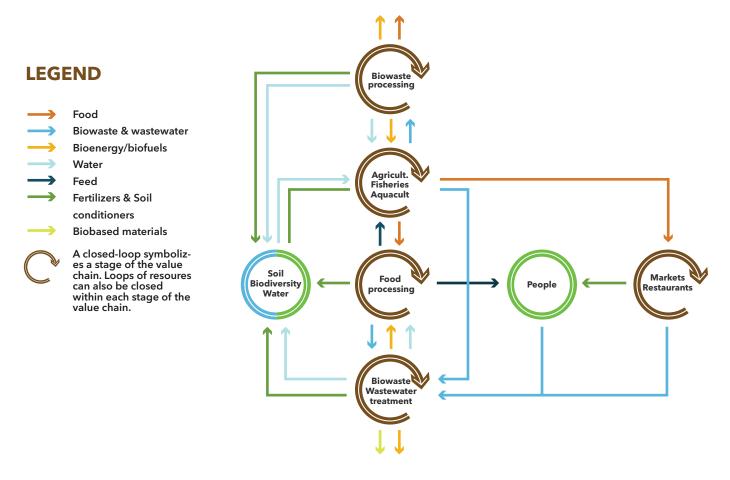


Figure 8: Scheme of the circular food system of Kosovo Source: Deloitte and Circular Change

Circular, resilient and healthy food systems rely on the high quality and **regeneration** of water and soil resources, a healthy state of ecosystems, and climate. A circular food system can achieve this through **regenerative** practices that promote **biodiversity**, permaculture, and organic food production. These practices substitute the use of monocultures, overfishing, and intensive practices. It is also important to decrease the use of toxic chemicals and additives delivered through **circular packaging** systems.

Circular value chains are developed by valorizing biowaste streams to produce renewable fertilizers, regenerate soil and produce renewable energy and materials. Along the whole value chain, food waste is minimized. Strong **local value chains** promote the "farm to fork" principle and rural development, and foster **local heritage and culture.** Such value chains are achieved through **collaboration** and cross-sectoral synergies.

⁸³ Ibid.



- Local value chains and farm-to-fork
- Regenerative agriculture and aquaculture
- Biodiversity and permaculture
- Organic food production



- Reducing food waste
- Closing the loops of carbon and nutrients
- From fossil fertilizers to circular fertilizers
- Bioenergy, biofuels, and biobased materials



- Water management and resiliency
- Biodiversity
- Climate mitigation and adaptation



- Sharing schemes
- Rural development



• Alternative protein sources



- Precision farming
- Urban farming

Figure 9: Trends and hot topics for the development of the Food System Source: Deloitte and Circular Change

Opportunities for a circular food system



Organic, local, and healthy food production

One of the main opportunities for the development of a circular food system in Kosovo is **organic**, **local**, **and healthy food production**. This can help promote heritage, local products and value chains while contributing to the **competitiveness** of agrifood businesses with increased product quality recognition at home and abroad. Organic production is synergic with the implementation of **regenerative agricultural practices and soil management** which can reduce **import dependence** on raw materials such as fertilizers. Such practices foster soil and water quality and **biodiversity** and reduce agricultural pollution. Some circular frontrunners are already working towards this direction, but more comprehensive and overarching efforts will be necessary. Awareness-raising is thus needed among agrifood businesses. Circular demand also needs to be properly addressed and nurtured with increased consumer awareness to increase acceptance and change habits.

The implementation of some regenerative practices would require further efforts in the **education sector**, **capacity building** and the **reskilling** of professionals, especially for agriculture and farming.⁸⁶ New regenerative and organic farming practices could attract major involvement by **young people**, youth initiatives,⁸⁷ business investors and academia. These stakeholders can jointly contribute to **research** studies to further develop the sector. Such efforts can be supported by strong quality, health focus and circular standards in food production⁸⁸ and the implementation of congruent **policy** actions.

⁸⁴ Circular frontrunners were interviewed as part of the stakeholder engagement process.

⁸⁵ Awareness-raising among consumers relates to the value of food products that are produced sustainably.

⁸⁶ Knowledge of CE is not yet complete in this sector and for implementing these opportunities; further exploration and capacity building would be needed regarding permaculture, organic practices, and the benefits of this direction in synergy with the other opportunities - waste valorization.

⁸⁷ The stakeholder engagement process has led to the identification of frontrunners in the startup scene led by young, talented and knowledgeable Kosovo entrepreneurs.

⁸⁸ Some of the leading organizations worldwide are ISO, FAO, and EFSA.

Partnerships and collaborations such as consortia or cooperatives can support the systemic pursuit of such opportunities, especially for small businesses. These partnerships can also help address current problem areas such as resource traceability, food quality, certifications, and other common challenges.



Alternative sustainable farming practices

Vertical farming and rural-urban initiatives can help in raising awareness about the food system while at the same time contributing to increased food productivity in Kosovo, to the local offer in cities and to the diffusion of regenerative and eco-friendly practices. Such initiatives can also contribute to fostering the connectivity between rural and urban environments, businesses, and stakeholders, and provide a fertile ground for new businesses, research, and community building.



Closing the loops of biowaste, water, and nutrients

Profound circularity, sustainability and resilience can only be achieved by closing the loops of carbon, water, food, and nutrients that ensure fertile and regenerative soil, clean water, and healthy food. The closure of these loops can be achieved by treating and/or reusing and managing biowaste streams and byproducts (such as municipal foodwaste, sludge, manure, agricultural biowaste). Such processes can produce organic and circular fertilizers, 89 restore the properties of soil while tackling the burden of waste 90 and reducing the need for importing fertilizers and raw materials.

There are already some organizations working with the treatment of agricultural waste and municipal food waste, with a focus mainly on **composting.** However, there is low awareness and knowledge of other treatment processes that can yield **biofuels, bioenergy, and high-added-value materials.** These processes may require higher investment, capacity building, and large quantities of biowaste streams to reach financial and technical feasibility; further **collaboration** would thus be needed (further studies are advisable in this field). Specialized knowledge and expertise are needed and can be achieved by actions in the education system (see Horizontal areas) and reskilling processes for businesses. Coordinated support from public institutions and local authorities would be needed to address the integrated management of biowaste streams and ensure their **monitoring, transparency and traceability.** Logistics, connectivity, and accessibility should be improved via **sustainable rural infrastructure** development.



Revenue diversification, self-sufficiency and resilience in farms and rural food businesses

Increased competitiveness and resilience can be achieved through revenue diversification. Cross-sectoral synergies can lead to agritourism and ecotourism, which can provide additional income and attract further investment to the rural sector. Such practices can raise the awareness of sustainable agriculture, heritage, organic and local food. Actions for the development of sustainable rural infrastructure can increase rural accessibility, and urban-rural connectivity (See chapter on horizontal areas).

⁸⁹ Some regenerative and organic practices are based on soil and nutrient management and thus cycling such resources.

[%] Closing the loops could have a positive impact on recycling rates, the amount of waste treated, and secondary raw materials.

⁹¹ Information from stakeholder engagement.

Additional income, self-sufficiency and the reduction of the cost of energy consumption can be created through **renewable energy production**. However, a higher level of **awareness and capacity building** would be needed to increase initiatives and investments in revenue diversification projects. At the moment such initiatives and projects are not being pursued in Kosovo. In some cases, the required renewable energy production technologies need high investment and ROI, which can be an obstacle for small businesses and small farmers, and so **collaboration** and **public support** are needed. **Green funds** can represent a supporting tool for businesses for both energy and ecotourism initiatives. At the moment, businesses can only be rewarded by energy bill reduction and not with revenue for surplus energy production as prosumers.⁹²



Cooperatives or collaboration platforms for farmers and agrifoods stakeholders

Collaboration platforms could leverage the rest of the opportunities of the food system and support small businesses and farms, and their high level of fragmentation. The development of platforms such as cooperatives can support small producers to tackle their "critical mass" challenges but also act as a knowledge-sharing and support platform that can address common challenges such as climate change adaptation and need for expertise. Until now collaboration in food value chains has not been sufficient, and so awareness-raising campaigns about future challenges and the benefits of circular solutions are needed. Some existing youth initiatives and a few developing cooperatives are anticipating collaboration and could support in this direction.

Joining forces can also reduce costs through the application of **sharing economy** principles in agreements and initiatives for the systematic sharing of otherwise unaffordable equipment and vehicles needed by small agrifood businesses. This can help reduce the dependency on imports and the amount of waste produced. These schemes can contribute to the development of new circular business models, through the intangible resources of **data and information** useful for product and business optimization. Finally, **sustainable transport, connectivity, and infrastructure** need to be further developed to facilitate the **logistics** of collaboration.



The Forest System

The forest system as defined in this roadmap includes the following economic sectors of the forest-based value chains: forestry and logging, wood processing, pulp and paper, wood and cellulose-based production, and advanced biobased production. The potential of Kosovo's forest system relies on the relatively large proportion of forested land, and forest resources whether primary or secondary – such as byproducts that can enable the creation of circular value chains that contribute to the decarbonization of Kosovo.

⁹² This is a known issue that has been raised by several private and public stakeholders during the stakeholder engagement process.

⁹³ Advanced biobased production as defined in this roadmap refers to biorefining processes leading to the production of chemicals and materials from wood byproducts.

These sectors are an important contributor to the local economy and job market. However, in spite of its circular potential, the forest system faces several challenges - such as biodiversity loss, forest degradation & deforestation (21.34 km² of forested land damaged between 2000-2022 in the Anamorava region⁹⁴), informal employment, illegal and intensive logging and improper management of forests and byproducts. As with the food system, this sector is also characterized by small businesses and high fragmentation. Most forest land is publicly owned (approximately 60%95). The government of Kosovo has addressed these sectors in the Forestry Strategy of Kosovo and the National Strategy for Agriculture and Rural Development and has indirectly referred to it in other strategic documents (see Appendix 2).

+45% Forested area

Source: National Strategy for Agriculture and Rural Development

+40 mi Total standing volume 93% are hardwood species 5% are coniferous

Source: National Strategy of Agriculture and Rural Development and National Strategy for Forestry

€24-48 million Timber production value €40-50 million Final processing industry value

7.5% of the total export 2019Source: National Strategy for Forestry

What does a forest system look like?

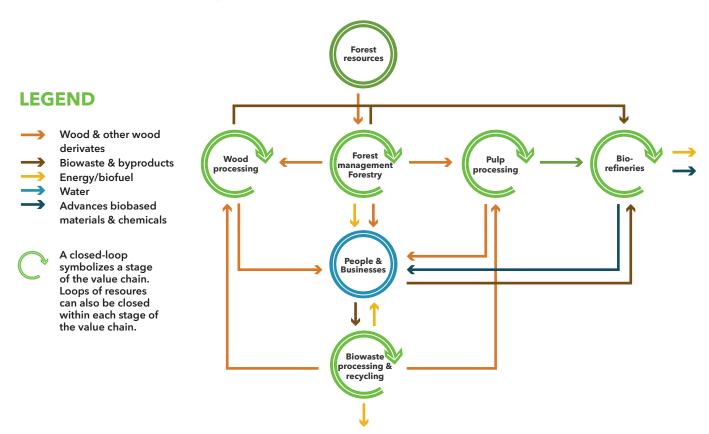


Figure 10: Scheme of the forest system of Kosovo (simplified) Source: Deloitte and Circular Change

95 Ministry of Agriculture and Rural Development. Forestry Development Strategy for Kosovo 2021-2030.

⁹⁴ Foniqi, Faruk, Sustainability Leadership Kosova. Deforestation Analysis in Anamorava (Gjilan, Viti & Kamenica) 2000-2022.

A circular and resilient forest system is based on the health and availability of forests and their ecosystems, which is why a solid foundation is built with sustainable forest management, reducing intensive logging and deforestation. Resources are utilized according to circular principles and circular value chains are formed. Strong local value chains promote the production of local forest-based products. Circular forest value chains work towards high-added value products and renewable energy and valorize secondary resources such as biomass residues and waste, adopting a cascading approach to the use of biomass. The closure of forest loops enables circular biobased materials and products and contributes to the decarbonization of the economy. Such value chains are achieved through collaboration across the value chain and through cross-sectorial synergies (Figure 11).



- Biorefineries and decarbonization
- Biobased materials and energy
- High added value products
- Bioeconomy



- Sustainable forest management
- Biodiversity
- Ecosystem services
- Climate adaption and mitigation



- Closing the loops of wood byproducts
- EPR and waste packaging
- Waste biomass valourization



- Sharing schemes
- Agroforestry and urban forestry
- Rural development



 Decarbonization and alternative materials for products and construction

Figure 11: Trends and hot topics for the development of the Forest System
Source: Deloitte and Circular Change

Opportunities



Valorization of forested land and nature - Sustainable forest management

Kosovo's rich natural forested land is the basis of the forest system. Sustainable forest management is needed to build a secure and enduring foundation for a circular forest system for the country. It can foster healthy forests and counter the biodiversity loss, deforestation and forest degradation that are currently among the forest system's main challenges. A higher level of policy implementation and law enforcement would be needed to reduce the current illegal logging, intensive logging and unaccounted logging. This would foster the protection and security of Kosovo's forest system resources and thus its resilience. Successful forest management would also benefit from integrated policy efforts and an improved monitoring framework and traceability system for Kosovo's forest resources, forest businesses and their practices.

Businesses working with forestry and wood processing face common challenges which call for systemic and strategic **collaboration** among them and across the different forest-based value chains. **Higher awareness** about these challenges is needed. **Capacity building and training or reskilling** of all businesses across the forestry value chains are needed to advance sustainable forest management practices. Finally, strong public support, coordination and sustainable rural infrastructure are needed to enhance this potential.



Valorization of wood waste, wood processing waste and byproducts towards high-added value products and energy production

Residues and byproducts hold significant potential and can yield high added value circular products while closing the loops of forest-based resources. Some businesses are working in this direction, mostly for the production of briquettes and pellets produced from sawdust and wood processing residues. However, as previously noted, the current status of waste management is hindering the use of valuable resources and their potential remains untapped. The integrated management and valorization of these resources is necessary to reduce the waste burden and increase the competitiveness of business. Kosovo can go beyond briquettes and pellets into further products with high value in the market, such as circular biobased materials and chemicals. However, collaboration and cooperation are essential to increase the involvement of stakeholders and reach a critical mass of raw materials to facilitate financial and technical viability. In some cases, there is low willingness to collaborate and work towards added value products, and this is leading to loss of value (most of production is leading to low added value products such as roundwood and firewood). Most of these advanced solutions are not familiar to businesses and stakeholders in Kosovo. Higher awareness and capacity-building are thus necessary.

Some advanced technologies and processes may require high capital **investment** and **research and development**, with a joint contribution from businesses and **education/research** to properly target them. **Green funds** and **public support** could help to tap their potential. Circular value chains will need an improved monitoring framework that can support the traceability of resources and the implementation of policies and circular solutions. Finally, **illegal logging** should be addressed to ensure sustainable forest management and security of supply.



Wood, wood waste and woodworking residue to be valorized into the creative sector

Wood and its derivatives can be used by the creative sector to develop products that are sustainable and circular. There are businesses working towards the production of high-quality furniture, exporting their products abroad. However, more efforts are needed to harness the full potential of such cross-sectoral synergy. To learn more about this, see the second opportunity of the Creative sector.

Common opportunities of the Food and Forest systems



Smart and Circular resource management

Kosovo's food and forest systems would benefit from a circular approach to resource management going beyond food and wood and their residues to include water and energy. A holistic approach to

⁹⁶ Concluded from the literature review and stakeholder engagement process.

circular resource management can contribute to farmers, forest owners, and businesses **process and business optimization.**

Water management practices are essential because of the sector's high sensitivity and vulnerability to climate change and natural conditions. Practices include the treatment for reuse of wastewaters, collection of rainwater and water optimization practices. Meanwhile, energy management practices should also be implemented: energy efficiency, energy saving, the use of renewable energy sources, and the use of waste energy such as heated vapour for heating purposes. Pursuing such solutions and processes can contribute to resilience and self-sufficiency by ensuring the security of supply, reducing import dependency, improving the ability to address water shortages and increasing capacity for climate change adaptation. Digitalization can be a powerful enhancement of circular management systems, ensuring the proper monitoring and optimization of resources – which is currently lacking. To facilitate the integration of digitalization, further training and awareness-raising are needed in agrifood businesses. Businesses would benefit from cost reduction and increased resilience while the public sector would benefit from increased transparency and resource traceability, which currently need to be improved. Green funds and funds dedicated to the twin transition might be a good source of financial and technical support.



Agroforestry integration practices

This opportunity can become a reality through **collaboration** between food and forest systems. Agroforestry practices (**regenerative agricultural and forestry practices**) can yield both food and forest-based resources while promoting **biodiversity** and **regeneration** of the ecosystem. This practice would be supported by raising **awareness** among businesses and relevant public institutions about the food and forest systems while promoting their dialogue and **collaboration**. There is more about the potential of such regenerative practices in the first opportunity of the Food system.



Circular food and circular biobased packaging

The degree of circularity of food and other products also depends on their packaging. Efforts towards sustainable logistics, ecodesign of products, and the implementation of lifecycle management of food products play a significant role. Circular packaging includes packaging made of recyclable, reusable, biobased and/or biodegradable materials, and return/reuse packaging schemes. Ecodesign processes can help reduce the amount of packaging used, improve the circularity of packaging and reduce plastics and especially single-use plastics. There is a substantial need to raise consumer awareness to increase the acceptance of such solutions and to address greenwashing.

Local circular packaging production would tackle the growing demand for green products, especially among the youth of Kosovo, while reducing the current need for and cost of importing such materials. ⁹⁹ Businesses would benefit from **capacity building and further expertise** in the field of circular packaging, ecodesign and lifecycle assessment. Furthermore, once circular packaging is used it must be able to return to its cycle, and for this to happen further efforts will be needed to develop the current **waste management system.**

 $^{^{97}}$ There are some entrepreneurs in Kosovo already working in this direction of circular bioeconomy resources.

⁹⁸ Circular biobased packaging can help reduce the amount of waste packaging and make progress toward the decarbonization of Kosovo.

⁹⁹ Stakeholder engagement has shown that circular frontrunners working with biodegradable packaging need to import most of their materials.

The actions that are being taken forward, such as the development of **Extended Producer Responsibility (EPR) and Deposit Refund schemes (DRS),**¹⁰⁰ represent a foundation for further efforts. There are only a few businesses using circular food packaging in Kosovo on a commercial scale, and greater awareness among businesses will be needed.¹⁰¹



Ecotourism and rural valorization - Ecosystem services

Forests are a valuable resource for Kosovo, not only for the raw materials that they are able to provide but also for **ecosystem services.**¹⁰² The promotion of **sustainable and circular tourism** in the rural environment can contribute to the economic and social development of the **rural sector.** This is in synergy with agritourism opportunities described in the food system (see the fourth opportunity of the Food system). This can contribute to revenue diversification and the connectivity between **rural and urban environments.** The development of such opportunities would require a higher level of **awareness** among the general public, forest-system businesses and forest owners (including the public sector). At the same time, ecotourism can act as a strong tool for raising awareness of nature protection and the sustainable valorization of natural resources.

Improved **monitoring** of the rural system would be needed to ensure its proper valorization; this includes the monitoring of tourism initiatives. The development of ecotourism would benefit from countering the **pollution and littering** of nature and the **coverage of waste management and wastewater treatment services** in rural areas.



Creative sector

The creative sector as considered in this roadmap includes the following activities: **creative product** design, creative design of the built environment, creative art including manual arts, theatre, film and video, music, the other performing arts, fashion, crafts and architecture.¹⁰³ The creative sector, as already mentioned in this chapter, is an **enabling agent** of circular transformation in priority areas because it can fuel them with design thinking, ideas, product and service design, and the approaches needed to **enhance** the circularity of the whole socio-economic system.

The creative sector is difficult to measure in economic terms, given the current data framework of Kosovo. With new measures its contribution to the GDP could be tracked on yearly basis. Initiatives in Kosovo such as **Autostrada Biennale** and **Manifesta 14** have achieved international recognition¹⁰⁴ and served as a platform for the development and expression of the valuable **talent** of Kosovo's creative front-runners. Stakeholder engagement and literature review reveal a strong, driven force in this direction, in the form of **youth talent**.

¹⁰⁰ Ministry of Environment, Spatial Planning and Infrastructure, Kosovo Integrated Waste Management Strategy (2020-2029) and Action Plan (2020-2022).; Stakeholder engagement.

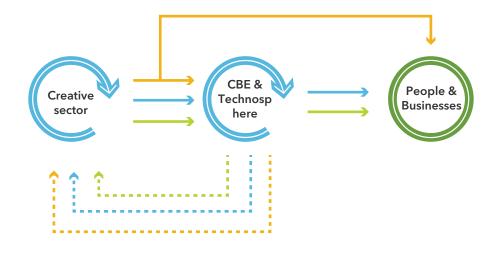
This has been concluded from stakeholder engagement activities.

Joint Research Centre, EU ecosystem assessment.Oxford Reference, "Creative industries."

Manifesta 14 and Autostrada Biennale have been showcased in press releases and articles in world-renowned international newspapers and media such as the New York Times. Source: The New York Times, "The Art World Came to Kosovo. What Happens When It Leaves?"

This sector is currently not included in public policies or strategies, but despite this has achieved notable progress in recent years. At the European level, it is included and promoted by the New European Bauhaus Initiative, and ecodesign of products is addressed by EU 7778. ¹⁰⁵

What does a circular creative sector look like?



LEGEND



Figure 12: Scheme of the circular creative sector of Kosovo Source: Deloitte and Circular Change

The creative sector does not work alone: it works in **synergy** with other economic sectors and priority areas by reusing, repurposing, or upcycling their waste materials and used products, leading to **sustainable and creative innovation** in the form of circular products and materials. This way it provides a connecting glue between sectors and facilitates the flow of knowledge and information for the development of more circular products and businesses.

A circular creative sector is in synergy with circular and sustainability principles. Instead of focusing only on creative expression, it goes beyond, contributing to building a future that is **sustainable**, **inclusive**, **and has inherent aesthetic values**. It works with the **ecodesign** of products and services and **brings back to life** waste materials and used products. Furthermore, it valorizes **local talent** and contributes to **mindset and culture-shifting** through the expression of messages through art and creative initiatives and events.

¹⁰⁵ European Commission, A new Circular Economy Action Plan For a cleaner and more competitive Europe.; European Commission, New European Bauhaus Beautiful, Sustainable, Together.



- Sustainable product design
- Sustainable packaging
- Made in " "- Local branding
- Sustainable fashion



- Biobased materials
- Biomimicry
- Alternative materials
- Green luxury



- Repurposing of products
- Upcycling
- Waste valorization



- Repurposing spaces and sustainable architecture
- Ecosymbols
- Creative hubs

Figure 13: Trends and hot topics for the development of the creative sector Source: Deloitte and Circular Change

Opportunities



The creative sector as a circular beacon of awareness

Awareness and education have been identified by stakeholders of all sectors as key challenges that need to be addressed for a successful circular transition. The creative sector's works of art and expression are potentially a strong tool for telling a story and conveying a message, thus raising awareness of key topics related to the circular economy and sustainability for the general public and stakeholders. Renowned contemporary artists, activists and social entrepreneurs have already started working in this direction, raising awareness about the environmental impacts of society. This points the way to further developing the sector. Creative events can become an opportunity for raising public awareness through their messages, activities, catering, materials, guidelines, etc. In order for the creative sector to become a beacon of awareness, it needs better coordination, integration into strategic documents and overall support from public institutions. Further public support and coordination to empower and quide the sector would be welcome, and better collaboration with other sectors should be supported.



Creative expression in symbiosis with sustainability

The creative sector has high potential to affect the implementation of several circular principles. This is because it can contribute to several cross-sectorial circular value chains: **redesign** and ecodesign of products, **products as a service concept** to be developed; **upcycling** of materials coming from waste; and **repurposed** materials and components of used products. Cross-sectoral **collaboration** is essential for developing such chains. The **waste materials** or **used products** of one sector can be upcycled or repurposed to fit another sector or use and can contribute to **innovation**.

This opportunity would be supported by the integration of sustainability and circularity in the **curricula of creative education** and of other sectors. Some informal educational organizations in Kosovo are working in this direction. The creative sector remains mostly unmapped¹⁰⁶ in terms of data, value, and contribution to the economy; thus it would benefit from **research**, and joint action between **research** and **business. Traceability** can be enhanced through an improved monitoring framework and **digitalization**. The role of the latter could become even more important for the creative sector as it contributes to **digital tools** that enhance product design and architecture.

¹⁰⁶ A study has been made to start mapping the contribution of the copyright industries in Kosovo, being only one component of the creative sector. Source: Intellectual Property Project 2021.



The creative sector as circular connecting agent

The circular economy requires **cross-sectoral synergies** and **resource exchange**, and the creative sector can become an interconnective glue for the priority areas of Kosovo. This sector has the potential to act as a **bridge** between sectors and promote dialogue and collaboration platforms and initiatives. It can also become a bridge between different disciplines, such as science/technical and art/culture, to address the systemic nature of the challenges to be faced when building a more circular Kosovo. ¹⁰⁷ Furthermore, it can enable the exchange of not just **materials resources** but also valuable **intangible resources** such as data, knowledge, and information about the use, life, durability, and circularity of materials and products.



Retail sector

The retail sector is one of the most economically significant sectors in Kosovo. According to the Kosovo Agency of Statistics, retail represents one of the largest service sectors in the economy, ¹⁰⁸ employing over 43,000 people - more than 70% of all employment in the sector of wholesale and retail trade, repair of motor vehicles and motorcycles. ¹⁰⁹ In 2021, this sector accounted for approximately 25% of Kosovo's GDP. ¹¹⁰ As emphasized within the National Strategy for European Integration - Kosovo 2020, more than half of SMEs are engaged in the retail sector ¹¹¹ and a large proportion of the country's female workforce is employed in retail. ¹¹²

Furthermore, despite the COVID-19 pandemic and its effect of reducing business activity and closing businesses, signs of retail sector recovery are visible in the recent investments¹¹³ and announcements by global retail companies investing in Kosovo.¹¹⁴ Along with that, the construction of one of the largest shopping, leisure and entertainment centres in southeast Europe, due to open its doors in the spring of 2023, has shown the potential for further economic development and future investment in Kosovo's retail sector.¹¹⁵ There is therefore a unique opportunity for increased momentum for a green recovery, stimulating adaptation of the sector's practices to global trends while taking care of Kosovo's natural resources.

¹⁰⁷ The New European Bauhaus clearly states that "It is a bridge between the world of science and technology, art and culture.... and an invitation to address complex societal problems together through co-creation." Source: European Union, "New European Bauhaus."

¹⁰⁸ Kosovo Agency of Statistics, "Statistical Repertoire of Economic Enterprises in Kosovo, Q3 2022."

Data as of November 2020: Swiss Agency for Development and Cooperation (SDC), Enhancing Youth Employment (EYE), Kosovo Retail Association, IDRA Research and Consulting, Skills Gap Analysis in Retail Industry, p.7

¹¹⁰ Kosovo Agency of Statistics, Quarterly Bulletin - October 2022. p.92

¹¹¹ Ministry of European Integration, National Strategy for European Integration - Kosovo 2020. p.43

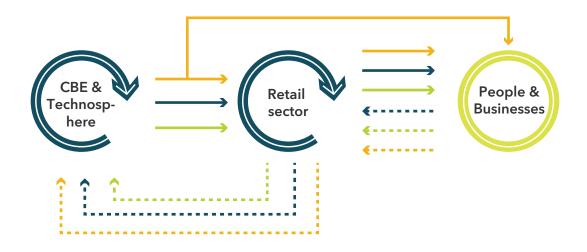
BalkanInsight, "Kosovo women seek end to 'period poverty'."

¹¹³ SPAR, "SPAR Kosovo invests €1.4 million in flagship supermarket.";

BulletiniEkonomik, "LiDL - The global retail company will invest in Kosovo.; in 2022 H&M is launching in six new markets, including Kosovo. Source: H&M Group, "Markets and expansion";

¹¹⁵ It is estimated that Prishtina Mall will employ 2500 people, which constitutes a significant proportion of the workforce of Kosovo. Source: Enver Ademi, Prishtina Mall, interview by Ladeja Godina Košir and Sema Čorbo-Lindov, online, August 2, 2022.

What does a circular retail system look like?



LEGEND

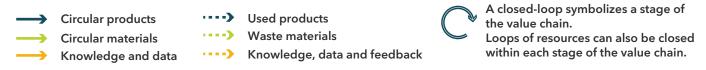


Figure 14: Scheme of the retail system in Kosovo (simplified) Source: Deloitte and Circular Change

With fast moving consumer goods and shortening product lifecycles, the retail sector and industry overall commonly follow a linear "take-make-dispose" approach. Retailers obtain products which have been previously manufactured from extracted resources and sell them to consumers who, when done using, discard the product - which in most cases ends up in landfills or waste incinerators. This means an immense volume of wasted products which could have been reused in a more sustainable way. In the last five years in Kosovo, the retail and wholesale trades alone have generated more than 193,000 tonnes of waste. The drawbacks of the linear retail approach have become most evident in recent times, especially with the risk of increased resource prices and availability, rising energy costs, volatile commodity prices and supply chain disruptions, but also greater consumer awareness of the environmental impact of every part of their lifestyle. Therefore, a circular retail model is designed to close the product and material loop by offering not only carefully designed long-lasting products that can be easily repaired, refurbished and remanufactured, but also accompanying services to recycle, repurpose and reuse the product at the end of its life. Circular retail has the potential to be one of the greatest enablers to drive circular consumer offer and demand, acting as the awareness-raising agent but also increasing connectivity with other sectors both locally and regionally.

¹¹⁶ Kosovo Agency of Statistics, Annual amount of waste produced by sector of wholesale and retail trade; repair of motor vehicles and motorcycles between 2016 - 2022. Offline document received by KAS.



- Extending product life cycle
- Eco-design
- Biodegradable and compostable packaging
- Refillable & reusable packaging



- Carbon footprint calculators
- Behavior-based rewards
- Transparency and traceability
- Greenwashing



- Sharing economy
- Resale, Rental and Repair platforms
- Refurbished electronics marketplaces
- Deadstock marketplaces



- Extending the shelf life
- Imperfect produce subscriptions
- Efficient inventory management
- Food banks

Figure 15: Trends and hot topics for the development of the retail Source: Deloitte and Circular Change

Opportunities

The circular economy can help develop the retail sector in Kosovo when the retail sector acts as a **circular connecting agent and facilitates the circular transition in other sectors.** Specific opportunities that would make use of the horizontal areas discussed in the introduction to this chapter are presented below.



The retail sector as a driver of the circular transition for other sectors

The retail sector can be viewed as a **driver of circular transition** for other sectors and society. It acts as an intermediary between manufacturers/businesses and customers, allowing the former to wield significant impact on consumer purchasing decisions, with a consequent impact on the environment. With the retail landscape drastically changing, physical stores are expected to have something of a new role. Many retail brands have the power of **acting as a centre of gravity - driving change in the industry.** In particular, shopping malls can have an important role as connecting centres with circular champions from other economic sectors to promote the flow of ideas and secondary raw materials, and to stimulate cross-sectoral and industrial symbiosis. Only by working closely with all stakeholders, therefore, can the retail sector help respond to circular transition needs.



Local product promotion and platforms

The retail sector plays an important role in strengthening local product promotion, which is currently insufficiently targeted because of low consumer awareness of local businesses.¹¹⁷ Through cross-sectoral collaboration, retail can act as a **platform to raise awareness about Kosovo's unique talent and offering** across multiple sectors, and the significance of local production for the development of the economy. Across physical stores and digital platforms, retailers can stimulate the emphasis on Kosovo's local products and encourage domestic consumption.

¹¹⁷ Retail sector - The most pressing challenges for Kosovo's transition towards circular economy, Stakeholder workshop.

By collaborating with local producers and communities, retailers can place a range of local products on the shelves and encourage branding of products based on their quality and sustainability – "good from Kosovo", "produced by the young people of Kosovo", and so on. By **encouraging an appreciation of locally produced products and local talent,** retail thus has the power to contribute to awareness-raising and greater demand and enable opportunities for investments in local production facilities. This could result in new job opportunities, stimulate innovation and further enhance the potential and quality of local products, thus increasing the overall competitiveness of Kosovo's economy.



Sharing economy for more efficient resource use

A sharing economy is based on the principles of the circular economy, being a complementary part of the consumption side for any sector, especially retail. The overarching challenges of the retail sector low consumer awareness of circular and sustainable retail and purchasing, unsustainable retail practices and a challenging ownership mindset evident in Kosovo¹¹⁸ - can be addressed through a sharing economy. The sharing economy stimulates customers to choose not to own a product themselves, but instead to share it with other users. In turn, existing resources can be used efficiently and kept in circulation which contributes to the reduced need for new products and reduced consumption of resources. Some of the examples in the retail sector involve sharing economy shops/platforms and complementary solutions. This includes opportunities for renting and leasing of products - clothing, furniture, appliances, machinery or everyday functional objects. By promoting necessary shifts in collective consumption behavior, the sharing model is also shifting the perspective of companies and institutions from product to service. Therefore, the retailers need to reconsider their business models, and instead of solely offering products offer renting/leasing services. They can thus indirectly contribute to creating more sustainable consumption patterns by enabling consumers to use a service that provides access to products without the burdens of ownership. Overall, the sharing economy is seen as not only convenient and flexible but also affordable - which could drive further adoption of this concept and enable a win-win opportunity for both retailers and consumers.

Bundle 'n Joy is an example of retail company that offers **rental subscription services for maternity wear.** The idea is **to close the textile loop**, where clothes that are not needed anymore can be **reused**, and when not usable anymore, properly **recycled** through charity partners.¹¹⁹



Connecting food shops and food serving businesses towards food waste reduction and circular agrifood solutions

The retail sector contributes to the significant amounts of food waste. According to research by NIBIO, 2-20% of food served in Kosovo is left on the plate. With food waste a problem throughout the food chain, the position of retailers in the food system is especially important, as they play a significant role

¹¹⁸ Ibid

¹¹⁹ The sustainable fashion collective.com. "In conversation with Bundle 'n Joy: Possible the first ever maternity clothes rental scheme."

influencing upstream and downstream handling of food. In particular, establishing a connection and collaboration between food shops and businesses that serve food, such as restaurants, accommodation providers and caterers can help tackle this issue by using one player's waste as another player's resource -distributing surplus food to be further used for meal preparation. Such a collaborative system could also be applied at the larger shopping malls, which not only sell the food in grocery stores but serve it in food courts and restaurants. Restaurants in Kosovo that tend to have excess food could introduce social benefit schemes and use digital solutions - such as apps linking them with consumers - and sell surplus food during off-peak hours for a discounted price. There is also an opportunity for Kosovo's retailers to redistribute waste by introducing local redistribution schemes, supporting food banks by donating perishable food past its prime, or redistributing food to livestock farmers and to manufacturers who can use surplus food. Collaborating with food processors, farmers, NGOs and social ventures in the wider food ecosystem will help food retailers tackle the food waste problem and accelerate a broader circular agrifood solution.



Shops and malls as beacons of reverse logistics, deposit refund system and return schemes

Retail occupies a strategic position in the value chain due to its capillarity, flexibility and ability to position itself as industry front runner by becoming part of the solution. In particular, the retail sector plays a vital role in directing the implementation of reverse logistics, return schemes and the deposit refund system (DRS), acting as a crucial link between the public as users of the schemes, the public institutions putting policies in place, and producers. The implementation of DRS is becoming an increasingly popular solution to the challenge of recycling and one of the milestones towards a circular economy, being recognized by the Integrated Waste Management Strategy (2021-2030)¹²¹ and already seeing some initial development plans for packaging of beverage containers. 122 In combination with DRS, reverse logistics and return schemes tackling waste collection and recycling through product return and return packaging can contribute to an improved waste management system in Kosovo. Retail stores can engage customers in a cause, infusing meaning into the interaction by providing customers with relevant solutions, whether that be repair, reuse, warranty and value recovery, end-of-life recycling or redistribution. Shops and malls, with support from their suppliers, can contribute to the proper disposal of defective or post-consumer products and their packaging by enabling the return of these materials to their manufacturers, and investing in innovations focused on reuse by offering refill opportunities. Acting as a beacon, with the right policies put in place, shops and malls have the potential to guide their customers from intention to action with clarity, education and financial incentives, thus driving the wider adoption of reverse logistics, the deposit refund system and return schemes among the general public. In turn, retailers have an opportunity to boost customer satisfaction, increase their brand value and meet sustainability goals whilst enjoying economic, social and environmental benefits.

¹²¹ Kosovo Environmental Protection Agency, Integrated Waste Management Strategy (2019-2028) and Action Plan (2019-2021).

A new law is planned on the establishment of a deposit refund system for certain packaging types and an administrative instruction on packaging and packaging waste. Additionally, an international company was contracted to start the development of a deposit refund scheme (DRS) for beverage containers. Source: European Environment Agency, European Topic Centre on Waste and Materials in a Green Economy. Municipal waste management in Western Balkan countries - Country fact sheet - Kosovo. p.11.



Self-production of renewable energy, energy-saving practices and optimized green logistics

A secure power supply is one of the key requirements for modern retail outlets, considering their wide assortment of products, daily fresh food offering and desire to create a sophisticated shopping environment with high energy demand. Increased energy consumption and rising energy costs, especially following the current energy crisis, 123 along with the effects of climate change, are posing real threats not only to the business sector but to the wider community in Kosovo. This is increasingly prompting retailers to address the challenge of steadily improving energy efficiency in their stores. Through circular economy solutions such as recycling and conserving critical materials, using low-carbon secondary circular materials and designing circular systems for longer life (i.e. with easy disassembly and recyclability), energy transition can achieve its full potential. The retail sector can see the potential in retrofitting projects, making shopping malls hubs for renewable energy production, incorporating solar collectors, photovoltaic panels and innovative battery systems to help meet a building's energy needs, and powering electric-vehicle charging stations.¹²⁴ Plans for a new mall in Prishtina are based on the use of the latest renewable energy technologies, which would drive energy savings of around 80% and material savings of embodied energy.¹²⁵ Apart from using renewable energy to power operations and facilities, retailers can drive energy efficiency enhancement by: increasing efficiency of their operations (i.e. lighting and heating, ventilation and air conditioning retrofits), increasing the portfolio of energy efficient products (i.e. electronic and appliances, home energy management, electric transportation and consumer education at their locations), collaborating with suppliers to increase supply chain energy efficiency, and reducing packaging and packaging waste. These investments would not only enhance the retail brand's value but would reduce long-term risks associated with future resource constraints and regulatory burdens.

Kosovo's Technosphere System

The Circular Technosphere corresponds to the component of the circular economy which includes all the sectors producing goods whose materials have an origin from mining and extraction of minerals such as concrete and metals.¹²⁶



Built environment

The built environment as defined in this roadmap is a part of the construction sector and comprises the buildings, roads, infrastructure and other human-made features of the surrounding environment. It is one of the largest industrial sectors in Kosovo in terms of resource flows. According to the Kosovo Agency of Statistics, the construction sector is one of the largest sectors in the economy, ¹²⁷ employing over 50,000 people – around 10.5% of the overall labour force. ¹²⁸ In 2021, this sector accounted for approximately 11% of Kosovo's GDP. ¹²⁹ Additionally, the construction sector's contribution to the overall

Davies, "Kosovo stops import of electricity and begins energy rationing."; Retail sector - The most pressing challenges for Kosovo's transition towards circular economy, Stakeholder workshop.

¹²⁴ European Commission. "Making shopping centres beacons of energy efficiency."

Enver Ademi, Prishtina Mall, interview by Ladeja Godina Košir and Sema Čorbo-Lindov, online, August 2, 2022.

William McDonough. "William McDonough articulates Circular Carbon Economy Framework for the G20."

Kosovo Agency of Statistics. "Statistical Repertoire of Economic Enterprises in Kosovo, Q3 2022."

¹²⁸ Kosovo Agency of Statistics. "Labour Force Survey (LFS) in Kosovo, 2021."

¹²⁹ Kosovo Agency of Statistics, Quarterly Bulletin - October 2022. p.92

economy of Kosovo has been recognized in key policy documents such as the Strategy for Local Economic Development 2019-2023 and the Economic Reform Programme.

The construction sector is patently undergoing a significant boom in Kosovo, and this has led to increased quantities of waste from the construction and demolition of residential buildings and other structures. According to the Kosovo Agency of Statistics, between 2016 and 2020 the construction sector generated more than 863,000 tonnes of waste.¹³⁰ With a waste management system as-yet undeveloped, an insufficiently-defined and -clear regulatory framework, and increasingly unsustainable practices as signaled by stakeholders,¹³¹ the urgent implementation of circular practices and increased resource efficiency is one of the main priorities for the econo mic development of Kosovo's built environment.

What does a circular built environment look like?

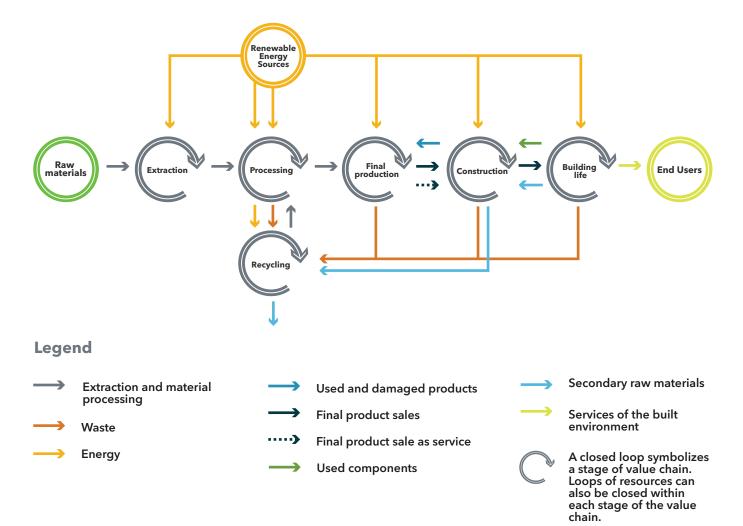


Figure 16: - Scheme of the circular built environment in Kosovo (simplified)
Source: Deloitte and Circular Change

¹³⁰ Kosovo Agency of Statistics, Annual volume of waste produced by the construction sector between 2016 - 2022; offline document received by KAS.

Built environment - The most pressing challenges for Kosovo's transition towards circular economy, Stakeholder workshop and stakeholder engagement.

The prevalent **linear economy model of the built environment** has been based on the use of fossil resources, natural resource extraction and intensive land exploitation. Within the linear value chain of the built environment, material components are extracted and fabricated, built, demolished, and disposed of after use, following the take-make-waste approach and creating unsustainable practices. The way we design, construct, and eventually demolish the built environment does not only result in the disposal of waste, which is costly, but it also leads to loss of resources and consequently pollutes the environment.

In contrast, the **circular economy model of the built environment** has emerged as an alternative and sustainable approach in which material components are fabricated, built, disassembled, and reused or recycled, creating a circular value chain. At its core, the circular economy model increases material resource and energy efficiency, minimizes waste, and promotes a low-carbon footprint. The foundations of sustainable buildings and infrastructure are based on eco-design principles such as modular construction and durable components, following the lifecycle assessment (LCA) of materials and using circular (i.e. recycled) and renewable (i.e. biobased) materials. Instead of intensive construction of more buildings, the circular economy model encourages renovation, repurposing and multipurposing of infrastructure projects, and the leasing of old buildings and spaces. In this way, space and land consumption are optimized, energy efficiency is increased, the life of buildings and materials is maintained for longer periods, waste and GHG emissions are reduced, and the closed loop cycle is attained.



- Renewable materials
- Biobased materials
- Circular materials
- Keeping materials in use



- Smart urban planning
- Compact and biodiverse urban environments
- Sustainable spatial planning



- Renovation and repurpose
- Multifunctional buildings



- Ecodesign
- Modular construction
- Net zero buildings



- Resource efficiency
- Space efficiency and land consumption



- Smart buildings
- Smart cities

Figure 17: Trends and hot topics for the development of the built environment¹³²
Source: Deloitte and Circular Change

Opportunities

The development direction for Kosovo's built environment offered by the circular economy was defined in terms of sustainable construction with increased resource efficiency, exploitation of construction and demolition waste and sustainable infrastructure, which would facilitate the circular transition in other sectors. Specific opportunities that would make use of the horizontal areas discussed in the introduction to this chapter are presented below.

¹³² General knowledge, Ellen MacArthur Foundation. "The Nature IMPERATIVE: How the circular economy tackles biodiversity loss." and Joensuu et al. "Circular economy practices in the built environment."



Spatial planning with circularity at its core in cities and rural areas

Existing buildings and infrastructure hold more value than is usually associated with them, and thus there is great potential to revitalize unused, old and abandoned spaces. In particular, through renovation and repurposing projects, existing buildings and facilities can obtain new functionality, provide added value and serve more needs within the same space. Through stakeholder engagement and collaboration with other sectors, the built environment can enable the transformation of existing spaces into multipurpose areas, and stimulate space sharing and leasing, thus reducing the need for new spaces and buildings, optimizing land and already urbanized spaces, and avoiding the unnecessary waste of resources. By developing circularity in synergy with holistic spatial planning, the built environment can contribute to all the economic sectors by enabling sustainable infrastructure and modernization, and facilitating cross-sectoral value chain integration, ultimately increasing cross-sectoral and rural-urban connectivity. The circular economy can thereby help create urban areas that are more livable, productive and convenient.

Termokiss is an example of the urban transformation project that gathered the youth of Kosovo and local community, urban spaces and revitalized abandoned building to be used for social and cultural activities based on community needs.¹³³



Closed loop systems to decrease import dependency on raw materials

The prevailing low availability and rising costs of construction materials, as well as the high import dependency¹³⁴ highlighted by a majority of engaged stakeholders, pose significant challenges for the construction industry. At the same time, due to landfilling and inadequate management of construction and demolition waste (CDW),¹³⁵ valuable waste that could otherwise be used more sustainably is being lost. Coupled with the high demand for construction materials, this predicament could prompt a rethink of the current built environment value chains, recovering this valuable waste and using it for new infrastructure projects. By using recycled secondary raw materials from construction and demolition/renovation activities, Kosovo's built environment could stimulate the local supply of circular construction materials¹³⁶ through the introduction of a local material bank and a material passport for contractors as evidence used for building. Through circularization of these secondary materials and greater use of resource efficient and environmentally-nutritious modular and biobased materials, this sector could enable a closed loop system and open new opportunities for circular construction and infrastructure projects. By following sustainable trends, exchanging good practices and applying circular principles, the built environment would contribute to the reduction of carbon emissions, better resource and waste management, prevention of new material extraction, lower air pollution and a healthier environment. However, to encourage the adoption and use of innovative circular and sustainable materials by the wider construction community, public institutions must put necessary measures in place.

¹³³ European Endowment for Democracy, "Termokiss - A community-led cultural centre bringing new life to Pristina."

¹³⁴ Built environment - The most pressing challenges for Kosovo's transition towards circular economy, Stakeholder workshop and stakeholder engagement.

¹³⁵ Karokhi, Khaled, Martin et al., Construction and Demolition Waste in Kosovo; A case study in the municipalities of Pristina and Fushe Kosova.

There have been some positive signs of a developing local supply of circular construction materials as an outcome of the discussion panel "The industry of Construction Materials: Increasing the participation in the Kosovo market", recently organized by the Kosovo Manufacturing Club. Source: Kosovo Manufacturing Club, "The industry of construction and building materials is ever growing."



Built environment as an enabling pillar for circular and sustainable infrastructure for the other economic sectors

The built environment sector can be viewed as an enabler of circular transition for other sectors and for Kosovo society as a whole. While the built environment concerns businesses, people and governments, it also has a significant impact on the environment and the standard of living. The built environment can therefore play a key role in driving the development and **use of circular materials in synergy with other sectors** such as creative, forestry and manufacturing. It can also provide sustainable infrastructure and facilities to businesses in other economic sectors, enabling their circularity – i.e. through circular materials, sustainable warehouses, waste and water management, energy efficiency and so forth. As such, there is an opportunity for the built environment to exploit its role and work closely with all stakeholders within Kosovo, as well as to drive regional connections, to respond to the needs of circular transition. By strengthening cross-sectoral collaboration, this sector would be able to address its obligations in transforming the built environment to a more circular and sustainable one.



Circular and green public procurement as a sustainable and circular space enabler

As a large consumer of raw materials, the built environment is in a unique position to drive sustainability, promote resource efficiency and promulgate circular procurement. Circular procurement is an aspect of green and sustainable procurement focusing on closed loops and efficient and non-risky cycling of materials. By incorporating requirements for circular material sourcing in procurement processes and introducing preferences for circular products, the built environment has an opportunity to not only drive its own transition but also influence other businesses to transition to a circular economy model. In guiding contractors to operate according to circular practices, green public procurement should seek to cover criteria such as: lifecycle analysis; use of at least a minimum percentage of reused and/or recycled materials; required environmental product declarations (EPDs) for the main construction materials; on-site material management; and use of low carbon cement and concrete. However, for circular green procurement to achieve its envisioned scale of impact, collaboration between different stakeholders is crucial in proposing regulations and driving commitments to fulfil the set criteria.



Smart construction management

Increasing energy consumption, rising raw material costs and poor resource traceability¹³⁷ demand more **circular and smarter construction management solutions.** Digitalization is increasingly affecting the modernization of the built environment, from building management and operation processes, easier decision-making and time saving to financial resource saving and **reducing the costs of energy and material consumption.** The use of digital technologies such as smart logistics, sensoring and Building Information Modelling (BIM) can enable quantitative predictions of construction and demolition waste (CDW) in advance, minimize waste through construction design, and allow high-quality collaborations to achieve efficient CDW management. By recognizing the lifecycle information of materials, smart and digital technologies can help constructors optimize design to **reduce resource consumption and waste creation.** Additionally, with circular principles at its core, smart construction management can steer the **use of energy-efficient materials** and gauge **energy-saving construction and mainte-**

Built environment - The most pressing challenges for Kosovo's transition towards circular economy, Stakeholder workshop and stakeholder engagement.

-nance practices. Overall, merging circular and digital practices can allow economic growth for Kosovo and profoundly transform patterns of resource consumption, slowing material flows and increasing resource efficiency.



Manufacturing sector

The manufacturing sector ¹³⁸ as defined in this roadmap is dominated by manufacture of textiles, furniture, electrical equipment, and machinery and equipment. Other manufacturing subsectors are also present to a smaller extent, such as production of motor vehicles, trailers and semi-trailers, paper and print media, rubber and plastic products as well as other transport equipment. According to the Kosovo Agency of Statistics, the manufacturing sector is one of the most significant in the economy, ¹³⁹ employing over 40,000 people – around 10.3% of the labor force. ¹⁴⁰ In 2021 this sector accounted for approximately 16.2% of Kosovo's GDP. ¹⁴¹ The manufacturing sector is characterized by declining labour productivity and limited manufactured exports, which reflects unused potential negatively affecting Kosovo's competitiveness.

Kosovo has recognized the potential for increased competitiveness of its manufacturing sector by boosting production, sustainably reducing the existing trade deficit, attracting investments and also increasing resource efficiency and reducing environmental pollution. The recognition of the manufacturing sector's contribution to the national economy has been highlighted in key policy documents such as the Strategy for Local Economic Development 2019-2023, Economic Reform Programme and Strategy for Industry Development and Business Support (SIDBS) 2022 – 2030. Leave Furthermore, the upcoming Strategy for Industry Development and Business Support 2022-2030 also recognizes development of circular and green businesses in the manufacturing sector as one of its objectives, putting a focus on circularity and green products, pollution and waste and production efficiency. Shifting the manufacturing sector away from linear production by enabling transition towards circular value systems could present a significant opportunity for achieving such objectives.

¹³⁸ This focus area refers to all manufacturing subsectors excluding food and beverage production (NACE C.10 and C.11), and manufacture of wood and wood/cork products except furniture (NACE C.16), which are separately covered in food and forest systems respectively.

Kosovo Agency of Statistics, "Statistical Repertoire of Economic Enterprises in Kosovo, Q3 2022."

Kosovo Agency of Statistics, "Labour Force Survey (LFS) in Kosovo, 2021."

¹⁴¹ Kosovo Agency of Statistics, *Quarterly Bulletin - October 2022*. p.92

¹⁴² The Strategy for Industry Development and Business Support 2022-2030 is in the draft phase.

What does a circular manufacturing system look like?

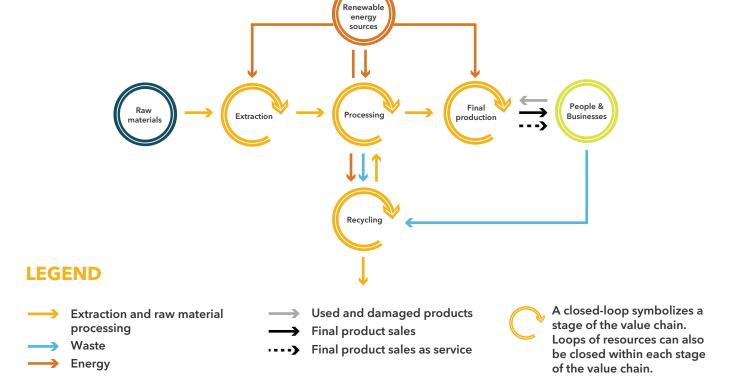


Figure 18: Scheme for the circular manufacturing sector (simplified)
Source: Deloitte and Circular Change

The linear manufacturing model follows the take-make-dispose approach, in which manufacturers extract resources and use materials to manufacture products which are sold to consumers and discarded after use. In contrast, the circular manufacturing model is designed to close the product and material loops to manufacture long-lasting products that are easy to repair, refurbish, remanufacture or recycle. Circular manufacturers use systems thinking and produce products by better organizing their business models, decreasing resource dependency, and using renewable energy sources to optimize energy use whilst promoting system resilience. The circular development of the manufacturing sector can bring modernization to Kosovo, and through digitalization it can increase competitiveness, optimize production and facilitate resource management. Circular manufacturing can become such by using circular materials, designing circular products, and implementing smart and circular resource management, extended producer responsibility and circular business models.



- Ecodesign
- Life cycle assessment
- Resource efficiency



- Reuse
- Refurbish and remanufacturing
- Repairing



- Durability
- Alternative materials
- Added value



Recycling

Figure 19: Trends and hot topics for the development of the manufacturing system Source: Deloitte and Circular Change

Opportunities

The circular economy offers increased competitiveness of production through the implementation of circular practices in production processes, circular business models and extended producer responsibility. Specific opportunities that would make use of the horizontal areas discussed in the introduction to this chapter are presented below.



Smart manufacturing and sustainable resource management

Smart and sustainable manufacturing operations can eliminate waste, improve resource efficiency and enhance environmental impact, and at the same time create value in manufacturing and supply chain management. Driven by the goal of boosting production and improving competitiveness while reducing import dependency, Kosovo manufacturers have an opportunity to enable better resource management by sorting materials and recycling them back into the manufacturing process. This is especially the case with textiles, metals, glass and waste from electrical and electronic equipment (WEEE), given that the manufacture of textiles, furniture, electrical equipment and machinery are predominant subsectors in Kosovo. With most solid waste collectors coming from the informal sector, the integration of this network into manufacturing value chains could drive the transition of manufacturing to a more circular model. Therefore, to drive further the smart manufacturing supply chains that reduce waste and address recycling or second life products, powering their facilities through renewable and green energy and sourcing circular and ethical materials, manufacturers in Kosovo will need to embark on a digital transformation journey. 143 By harnessing digital technologies, manufacturers can optimize processes and resource management and realize the benefits of reduced production costs, long-term resilience, better growth opportunities and improved connection with their target customers, both locally and globally, leading to an increased export share. However, with the lack of skilled workers still a pressing issue in the manufacturing sector, 144 the digitalization of processes in manufacturing companies needs to be accompanied by education (knowledge transfer through cooperation) and specialized training activities for workers to enable full circular economy transition and digital transformation. Additionally, water management practices need to be improved. By reusing and recycling water, circular water management practices can support circular value chains, reduce water consumption and water costs and provide greater resilience to the economy of Kosovo.



Circular products and materials

The implementation of circular economy principles is driven by circular product design, which sets the preconditions to achieve the full potential of a circular economy in phases - production, use and waste management. **Reducing by design** ¹⁴⁵ aims to reduce the amount of material and hazardous chemicals consumed during production and use, thereby influencing all stages of the lifecycle of the product or service in order to reduce negative impacts and waste. Moreover, with improved design, retrieving used products and returning them to the production chain for **reprocessing**, **refurbishing** can ultimately

¹⁴³ Although the Smart Specialization Strategy is in the preparation phase, some progress was already made in launching the e-platform for the Smart Specialization Strategy (S3) and Mapping of Economic, Innovation and Scientific Potential of Kosovo; source: Hollanders, Hugo. *Quantitative mapping for Smart Specialisation in Kosovo*.

¹⁴⁴ Manufacturing - the most pressing challenges for Kosovo's transition towards circular economy; stakeholder workshop and stakeholder engagement.

¹⁴⁵ UNEP circularity platform. "Building circularity."

save energy and resources and reduce waste overall. Enabling **circular design** and choosing **circular materials** can contribute to product differentiation and boost the competitiveness of Kosovo's manufacturers in international markets. With materials playing a vital role in the circular economy, manufacturers need to know the composition of the materials they use (i.e. origin, biodegradable properties, safety, utilization potential) and evaluate their potential for reuse and return to the value chain without contamination. Circular design would therefore incorporate **extended producer responsibility**, system development of which has already begun in Kosovo¹⁴⁶ and will be required in the years to come.

Promoting circular supply chains and stimulating demand for more circular products in Kosovo would depend on developing underlying business models that – as well as innovating in product design (i.e. eco-design, upcycled and durable products with added value) – are based on consumption modes such as **product rental and a sharing economy**, as well as on recycling systems and technologies that efficiently collect, sort and process materials. Additionally, as part of wider schemes for waste prevention, resource efficiency and product life extension, many repair and reuse centres and initiatives have emerged in Europe, encouraging consumers to bring products that no longer serve them, so that they can be repaired or reused instead of thrown away. Leveraging this momentum, Kosovo could benefit by **opening repair and reuse centres**, organizing them for bulky items such as furniture, electrical equipment or electronics, and contributing to reducing waste at landfills, **educating and raising the awareness** of citizens, providing more affordable goods and creating green jobs.



Green Public Procurement as an enabler of the circular materials and products and services

The manufacturing sector is a large consumer of raw materials, and is thus in a unique position to drive sustainability, resource efficiency and circular procurement. Production and manufacturing play an important role in reducing the environmental impact of products. Based on a lifecycle approach and use of ecolabelling, green public procurement would help Kosovo's manufacturers operate according to clear, verifiable and ambitious environmental criteria that seek to contribute to the closing of material and energy loops within supply chains and to minimizing waste creation across the lifecycle. However, no sector can do it by itself. The government can play an active role by including circularity, low carbon and sustainability among purchasing criteria, thus encouraging the market to transition to circular solutions.



Secondary raw material and secondary products platforms

With low availability of raw materials and import dependency, 147 Kosovo's manufacturers have an opportunity to recognize their mutual interests and collaborate to obtain necessary materials under equal market conditions. Establishing a platform that facilitates connection among member companies to exchange raw materials and utilize each other's waste and by-products would not only secure the procurement of raw materials but would enable material recovery and help to determine opportunities for industrial symbiosis. In addition to diverting waste from landfills and recovering materials, such cross-industry collaborations, initiatives and exchanges of best practice would promote the efficient use of materials and generate cost and energy savings, while creating new business opportunities.

¹⁴⁶ GIZ is working to support setting up the Extended Producer Responsibility system in Kosovo.

¹⁴⁷ Manufacturing sector - The most pressing challenges for Kosovo's transition towards circular economy, Stakeholder workshop and stakeholder engagement.





This document is based on the concept of required proactive **collaboration and efforts from the public, and network governance** to provide a systematic overview of the possible next steps and stimulate further stakeholder engagement and efforts towards achieving the vision of a circular future for Kosovo. Grounded in the notion that the circular economy requires a fundamental system change in order to put policies into practice, radically different implementation strategies from those used in the past seem essential. In particular, network governance cultivates a coalition of partners – stakeholders willing to contribute to the transformational change, who depend on each other to realize such potential. A collaboration between different stakeholders, fostered by network governance in constructive dialogue with public governance, is thus the approach that fits Kosovo. Complementing network governance with public governance can overcome the challenges to policy and circular initiative implementation, by creating an alliance between public and private stakeholders to co-create circular economy transition.

Recommendations for the way forward

As Kosovo embarks on the journey of circular transition, the involvement and collaboration of all stakeholders is the most important factor. Transformation cannot be achieved single-handedly, so the circular economy roadmapping for Kosovo was based on in-depth multi-stakeholder engagement. While the process of Roadmap creation and the resulting set of recommendations offer a starting point for strategic consideration of the next steps in the transition, the speed of transition will largely depend on how successfully stakeholders jointly overcome the existing barriers. The Circular Economy Roadmap for Kosovo represents a stepping stone that aims to initiate the dialogue between decision makers, private sector representatives, academia and research and civil society, and map the priority areas along with opportunities to drive the country's circular transition. It is by no means a policy document, but rather a foundation for future stakeholder efforts on their journey of circular transition.

The recommendations presented below, in relation to the two groups of change agents, are certainly not an exhaustive list. The recommendations are based on:

- Feedback received from stakeholder engagement activities from March to September 2022 (questionnaire, interviews, workshops);
- A thorough literature review of national policies and strategy documents;
- Relevant reports by notable institutions;
- Relevant EU policies;
- Roadmaps and models developed in comparable and leading European countries in the field.

¹⁴⁸ A vision of a circular future of Kosovo: A green, healthy and prosperous future for Kosovo, grounded in its rich natural and human potential, is attainable only with a regenerative mindset and systemic endeavors. We want to witness the circular transformation of Kosovo in a way that nurtures creativity and innovation and creates a safe environment for the continuous sustainable development of present and future generations.

¹⁴⁹ Jacqueline Cramer (2022), How Network Governance Powers the Circular Economy: Ten Takeaways for Global Changemakers



Public governance



Systemic collaboration, co-creation and co-implementation of policies

- The Circular Economy Strategy for Kosovo should be the next policy document following the Roadmap with concrete actions in line with opportunities and recommendations.
- The Climate Change Council should collaborate with other relevant public institutions to jointly foster the implementation of a circular economy in all segments of the economy and society.
- Alignment of key strategic documents and legislation to support the circular transition of Kosovo in a systemic and coordinated manner.
- Establishment of a Green Public Procurement framework with circularity and decarbonization at its core. This should include an appropriate monitoring framework and methodology to assess the circularity and sustainability of products and services.



Traceability and monitoring framework

• Kosovo's data and monitoring framework should be improved, broadened and developed to improve the traceability of resources (raw materials, products, primary and secondary resources, economic resources etc.), business practices, trends, and policy implementation. The framework should be approached systematically, with increased harmonization and greater coordination between data collecting agencies/institutions. These improvements would facilitate the shift towards integrated data management in Kosovo. Greater harmonization with international standards would increase the comparability of data between different organizations collecting and managing data towards integrated data management.



Management of resources

• Establishment of a multipurpose platform for resource management - based on a legal framework that moves from waste management to holistic resource management - and management of waste as a resource. Such a concept envisions a platform where companies could exchange resources in a way that one company's waste and by-products could be used as another's raw material or resource. That would enable further reuse, recovery and repurposing of materials and resources that would circulate among companies, easing the procurement of local materials and stimulating industrial symbiosis. This would be supported by improved infrastructure capacities to ensure smooth communication and exchange of resources as well as by capacity-building (public and private stakeholder engagement) for collaboration and to help embrace the benefits of the multipurpose platform.

- Further development and improvement of the waste management system: collection coverage, separate collection, recycling rates, and logistics. Improve the inclusion of the 10 R levels¹⁵⁰ of the circular economy and resource traceability, and switch from waste management to resource management.
- Adoption of a waste classification system for the monitoring and traceability of the waste management system in line with the European Waste Catalogue¹⁵¹ and the EU Waste Management Framework.
- Initiate institutional capacity building to equip institutional representatives with knowledge and successful examples for introducing relevant legislation. This would include, but is not limited to, alignment with the legislation on Ecodesign for Sustainable Product Regulation.¹⁵²



Investment and funding programmes

• Establishment of a "one stop shop" for green investments: a reference point where interested stakeholders can get all information related to available financial resources for green and circular transformation. (Such a service could be offered by the Circular Economy Hub.)



Research and education

- Adjustment of the educational system: sustainability and circular economy to be embedded
 horizontally across curricula disciplines and through entire educational verticals, from kindergarten to university. Promotion and implementation of lifelong learning.
- Introduction of a special programme for young people studying abroad to strengthen connections and collaboration with local educational institutions and the private sector with the aim of transferring expertise and knowledge and co-creating circular and green solutions in Kosovo.
- Establishment of a Circular Economy Research & Development Fund or incorporation of the circular economy in the foreseen Innovation Fund. The Innovation Fund could establish a branch solely focused on the circular economy to ensure funding of research and innovation, with greater inclusion of creative industries given their strong potential to act as an enabler for the circular economy transformation. This would engage businesses, academia and research, and civil society to contribute to and use the findings in their own development domains and mutual cooperation.

¹⁵⁰ Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle and Recover.

¹⁵¹ European Environment Agency, The European Waste Catalogue (EWC).

¹⁵² This encompasses an alignment with the Circular Economy Action Plan to enable the legal basis for the introduction of a Digital Product Passport for priority sectors such as manufacturing (i.e. textiles, packaging) and construction.



Circular cities and sustainable spatial planning

- Promotion of "demo projects" with Prishtina as a potential sustainable and circular city, the
 circular strategy and action plan to be designed and implemented based on collaboration
 between the municipality and national authorities. This would be replicated later in other cities
 through the transfer of good practices.
- Improvement of a sustainable spatial planning policy and its implementation in urban and rural districts, in line with circular development of priority areas.
- Stimulate connection of urban and rural areas in joint projects focused on the circular economy knowledge transfer, digital transformation, green jobs, local value chains, sustainable tourism and rural development.



Network governance



Circular culture

- Strengthening communication efforts on the circular economy: preparation of a communication plan identifying the right channels to bring the topic closer to different stakeholders and make it a lifestyle choice (in collaboration with local and national media).
- Promotion of circular culture: presenting circular solutions in an attractive, accessible, and affordable way (in collaboration with the creative sector).
- Strengthening the dialogue between the government and the private sector: regular meetings with the government's interministerial group to exchange ideas, proposals and cases, with cocreation of the inputs needed for circular transformation.



Circular skills

- Implementation of workshops on circular economy business models: development of an action plan with targeted audiences and goals from the workshops.
- Introduction of an educational programme for "transition brokers", based on the competencies needed to successfully manage circular economy clusters.
- "Introduction to LifeCycle Assessment (LCA)" knowledge-sharing workshop, and complementary training for academia and private sector stakeholders introducing the concept and offering an insight on the importance of LCA and its implementation.

• Fostering the twin transition¹⁵³ between circular and digital, connecting both topics and introducing concrete solutions based on both principles - workshops, hackathons, sharing of best practices.



Circular diplomacy

• Organization of "circular trade missions" - visiting best circular practices in other countries and, vice versa, inviting other countries and their delegations to visit Kosovo and experience circular practices (in collaboration with chambers of commerce, international organizations and others).



Circular partnerships

- Introduction of circular economy clusters for different sectors: orchestration of stakeholders for joint success and international competitiveness (for example in collaboration with chambers of commerce).
- Establishment of a platform for sharing resources between different sectors and businesses to strengthen local supply chains and reduce dependency on the imports of raw materials that already exist within local domains.
- Promotion and development of existing accelerator and incubator programs with a focus on circular economy, sustainable development, and digital and creative transformations.
- Establishment of the recently-devised Kosovo Circular Economy Hub, to foster the implementation of the above-mentioned recommendations regarding Circular Partnerships.

¹⁵³ For information on the twin transition as horizontal area, please refer to the section on horizontal areas.

Roadmap Development Approach



Literature review

- Review of **37+ documents,** in particular:
 - Policies, strategies and laws in Kosovo.
 - Research results and reports by renowned institutions in Kosovo.
 - National strategies, road maps and strategic documents of other countries in Europe
 - Overview of statistics.



Stakeholder interviews

• Individual interviews and conversations were conducted with 16 companies operating within the focus areas, and 7 stakeholders from the public, CSO and academic sectors.



Stakeholder workshops

- Stakeholder workshop in March with relevant stakeholders from different sectors (public and private), **25+ participants.**
- Stakeholder workshop with business sector in June as part of Kosovo Sustainable Development Week 2022, **20+ participants.**
- Stakeholder workshop with relevant stakeholders from different sectors (public, private, CSO), **25+ participants.**



Stakeholder questionnaire

• The questionnaire was distributed to the Working Group members and a list of all companies of the Kosovo Chamber of Commerce, American Chamber of Commerce and German-Kosovar Business Association, and it was **filled out by 42 respondents.**

Current state of inclusion of the circular economy in Kosovo's main strategic policy documents



Methodology for assessing the circularity inclusion in the strategic documents

The main strategic policy documents of Kosovo relevant to the circular economy were analyzed and are presented in the table below. The table notes the main content related to the development of the circular economy in Kosovo, the circular economy principles addressed or mentioned, and the main sectors addressed. The key points from this table are synthesized on page 19 of the roadmap, according to a division of the circular economy principles into four main categories that refer to the degree of circular resource management:

- Solid resource management and 10 Rs of the circular economy: Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle and Recover.
- Circular and systemic energy management principles
- Circular and systemic water management principles
- Circular bioeconomy and decarbonization principles

Such principles were identified from the circular economy model as described by the European Commission and the Ellen MacArthur Foundation.¹⁵⁴

Degree of inclusion of circular economy principles	Degree of inclusion of the circular economy Rs and solid resource management principles	Degree of inclusion of circular energy management principles	Degree of inclusion of circular water management principles	Degree of inclusion of circular bioecon- omy and decarbon- ization principles
Advanced = 5	Advanced = 5 Reuse, reduce, rethinking and ecodesign and industrial symbiosis		Systemic/ holistic water management	Circular biorefineries, biomass cascading approach and regenerative agricultural practices

¹⁵⁴ BIOEAST, "BIOEAST Foresight Exercise: Sustainable bioeconomies 2050."; European Commission, Circular Economy Action Plan: For a cleaner and more competitive Europe.; Ellen MacArthur foundation, "What is a circular economy?"

Degree of inclusion of circular economy principles	Degree of inclusion of the circular economy Rs and solid resource management principles	Degree of inclusion of circular energy management principles	Degree of inclusion of circular water management principles	Degree of inclusion of circular bioeconomy and decarbonization principles
Advanced = 4	Remanufacture, refurbish and repair	Integrated renewable energy sources	Wastewater treatment for reuse, water reuse and water saving	Biobased chemicals and materials and biorefineries
Medium = 3	Recycling, Upcycling, repurpose	Energy efficiency and energy saving	Integrated water management	Cycling carbon and nutrients, soil management, organic agriculture, biofuels from residual biomass and biowaste, Sustainable forest management
Low = 2	Separate waste collection, recover	Waste to energy - source-separated	Water efficiency Wastewater treatment	Biowaste and byproduct treatment, biomass to energy
Linear = 1	Waste collection and disposal	Fossil energy and mixed waste to energy	Wastewater treatment for discharge	Biowaste and byproduct disposal

Tabular presentation of assessed strategic documents and studies

Name of the Strategy/ Policy doc.	tegy/ principles covered principles not		Tags	Sectors addressed
Economic Reform Programme 2023-2025	The reform measures include actions in the following areas: -Water management in terms of river basins, wastewater and water infrastructureWaste management system and recycling -Biodiversity to a limited extent (considering the protection of natural areas and reduction of environmental pollution) -Decarbonization in terms of pursuing a low carbon economy -Environmental pollution in terms of air quality, waters, and protected areas -Renewable energy sources and energy efficiency -Decarbonization in terms of foresees the draft of a strategy for Long-Term DecarbonizationReform measure n.7 foresees a number of actions including the realization of a Circular Economy Roadmap -The document connects with the EUGD and the Sofia Declaration.	-The circular economy is yet understood in an insufficient way; in terms of the lower "Rs" available - namely reuse and recycle -Industrial symbiosis and a more comprehensive resource efficiency and resource management -Circular bioeconomy	-Water management -Waste management -Mention of the circular economy -RES and energy efficiency -Wastewater treatment for discharge -Recycling -Separate waste collection -Resource efficiency -Biodiversity -Reduction of pollution -Decarbonization (partial)	The document addresses all aspects of Kosovo's economy.

Name of the Strategy/ Policy doc.	Circular economy principles covered	Circular economy principles not covered*	Tags	Sectors addressed
National Development Strategy 2016 - 2021	- Infrastructure development: the use of renewable sources from water and biogas considered as options to direct Kosovo's resources towards building strategic infrastructure - The Strategy explores the challenges and underlying causes for the state of play of renewable energy sources in Kosovo and proposes solutions and activities (e.g. feed-in tariffs) - Sustainable waste management and investment in management infrastructure, consolidation of collection companies, creation of collection networks for wastewater treatments, need for increased awareness and stimulation of recycling recognized as priorities - Separate measures to ensure investments that will allow sustainable use of natural resources - Development of National Competitiveness Strategy emphasized as concrete activity to identify strategic interventions to enhance competitiveness of SMEs - Establishment of an institutional framework emphasized as concrete activity to support of industrial cluster development, including the involvement of government and businesses and Cluster Associations with larger firms assuming leadership role - Establishment of network of suppliers and sub-contractors emphasized as concrete activity to strengthen ties within the value chains - The Strategy recognizes the need to address the issue of fragmented agricultural land to increase average farm size and plot area as well as agricultural production, helping farmers produce more and helping the agro-processing industry to obtain more raw materials produced locally	- The circular economy not recognized at all as a concept of Kosovo's development until 2021 - only measures towards enhanced use of renewable sources recognized - Sustainability as a concept only recognized through the lens of environmental sustainability needing to be balanced with immediate economic needs to ensure rational use of natural resources - The Strategy does not take into the account the potential of rethinking about value chains in terms of circularity, but rather in terms of generally strengthening the network of suppliers and sub-contractors to enhance the ties within value chains - Circular mobility not recognized as a concept	- RES and energy efficiency - Waste to energy - Resource efficiency - Waste management - Biogas - Lowering consumption - Complementary infrastructure - Sustainable waste management - Waste management infrastructure - SME competitiveness - Value chain network	-Energy as horizontal area
Energy Strategy 2017-2026	-Energy efficiency in terms of equipment and technology to lower energy consumption -Energy security -Waste to energy is considered as part of the renewable energy sources for heating according to the strategy (wood waste) -Renewable energy sources are also supported by or included in the Heating Strategy, Forestry Policy, 10 year Action Plan on RES,	-The current strategy doesn't consider or address the additional biomass sources besides firewood -Energy management as a holistic approach is not included and is only limited to energy efficiencyCircular energy in terms of using excess heat	-Energy efficiency -Energy security -Waste to energy (wood for heating) -Renewable energy -Renewable energy from processed wood like pellets and briquettes -Decarbonization and biofuels for transport and consumption -Waste biomass valorization toward	-Primarily: Energy (renewable and non-renewable) -Secondarily: Forestry in terms of thermal energy potential of firewood and products such as briquettes and pellets, waste management in

Name of the Strategy/ Policy doc.	Circular economy principles covered	Circular economy principles not covered*	Tags	Sectors addressed
	Climate Strategy and the RES Support Scheme -Decarbonization of energy sources and decoupling carbon emissions from economic growth through -Addresses waste to energy in terms of biomass from rural and urban wasteThe strategy addresses the RES support scheme based on the mechanism of the certificates of origin through feed-in tariffs for hydropower, wind energy, photovoltaic energy, and biomassThe strategy addresses the importance of the sustainable use of wood for heating purposesSecurity of a sustainable, high-quality, safe, and reliable electricity supply with adequate capacities for stable power system operation	from processes to reuse and loop energy -Waste to energy considers municipal waste without further specification on the type of waste as a renewable energy source. Waste to energy needs to be better specified to avoid nuancesAddressing "clean coal technology" -Addressing firewood, wood and biomass without the concept of high added value or circularity	energy -Sustainable use of wood for heating purposes -Mention of climate change in terms of environmental obliga- tions	terms of wood waste potential for renewable energy production, transport system in terms of decarboni- zation
Kosovo Environmental Strategy 2013-2022	- Keeping materials in use: integrated waste management system (reduction-reuse-recycling-disposal) and waste reuse, especially from the recycling processes, or its return to the environment in a useful form (i.e. compost) recognized as objectives for solid waste management; potential for reusing waste materials for energy production recognized as priority for solid waste management - Use of latest technologies for environmental protection within the construction sector such as biodegradable construction materials and energy efficient designs recognized as priority areas - The application of energy efficient concepts in all sectors of energy users recognized as priority area - Establishment of Eco-fund that could serve as potential accelerator of Circular Economy transition recognized as one of the priorities	- The state of play as of 2013 did not recognize the circular economy concept or its principles (i.e. designing out waste and pollution, regenerating natural systems), including in its objectives and priorities - Product redesigning and rethinking in the industry not recognized - Separate collection not mentioned, nor recognized as one of the priority activities to contribute towards improved waste management - Resource efficiency not recognized as priority area; energy efficiency observed only	- Keeping materials in use - Integrated waste management - Reduce - Recycle - Reuse - Disposal - Biodegradable construction materials - Energy efficient design - Ecofund - Recover - Separate collection	-All sectors
Climate Change Strategy 2019-2028 and Climate Programme 2019-2021	- The strategy addresses GHG emissions and threats to climate produced by linear fossil-driven approach and unsustainable activities in several sectors (industry, agriculture, waste management, forestry, among others) - Resource efficiency and energy efficiency - Environment protection and water management are recognized for their impact on climate change mitigation	- The circular economy and bioeconomy are not addressed directly, while some principles are included partially. Both models can support climate change mitigation and adaptation and could be further integrated - Among the recommendations of the strategy some circular economy	-GHG emissions reduction -Climate change -Resource efficiency -Energy efficiency	-Primarily: horizon- tally, all sectors in terms of their contribution to GHG emissions. Highlighted sectors include energy, general industry, agriculture, waste management and forestry, recognized as the main contributors

Name of the Strategy/ Policy doc.	Circular economy principles covered	Circular economy principles not covered*	Tags	Sectors addressed	
	- Decarbonization not only in terms of energy sources but also for transition to a low carbon economy, carbon-neutral housing, carbon sequestration, and decoupling carbon emissions from economic growth - The Strategy recommends the integration of carbon sequestration into forest management and protected areas, afforestation and reforest management - The Strategy recommends organic production of food, separate waste collection and recycling - Definition of clear objectives tackling climate change mitigation, roles and responsibilities, and action plan	aspects are addressed however there are key ones missing, such as: - Agriculture (regenerative practices) and - Higher levels of "Rs" beyond recycling			
Water management Strategy for Kosovo 2017-2036	- Water management approach considering water use and resource efficiency, water protection, protection from water and river basin management - Improvement of the education system and raising of environmental awareness. - Renewable energy potential of water basins is recognized - Climate change mitigation and adaptation - Reduction, prevention and control of environmental pollution in water courses and bodies	-	- Water management - Water efficiency - RES - Climate Change mitigation - Climate Change adaptation partial - Reducing water pollution	- Primarily: water service, wastewater treatment - Secondarily: energy in terms of water-based RES, transport and infrastructure, education system, agriculture and food production in terms of irrigation and water demand, waste management	
Kosovo Integrated Waste Manage- ment Strategy 2020-2029 and Action Plan 2020-2022	- Lower Rs of the circular economy: waste reuse, recycling, and separate waste collection - Circular economy is set as strategic objective no.4 - Extended Producer Responsibility and Deposit Refund Schemes are foreseen for some types of waste - Important strategic objectives with actions and a monitoring framework with a systemic approach towards the development of the waste management system - To increase the coverage of waste collection, the development of a network of waste management facilities, the development of professional capacities, and the establishment of an industrial code for waste management companies. Further actions on RDI, a waste information system, strengthening enforcement mechanisms, feasibility studies, and raising awareness	- Most of the circular economy principles are not included in the strategy. Waste management is one of the pillars of the circular economy but it is significantly bound up with the other pillars. The strategy doesn't grasp the whole circular economy concept	- Waste Management - Recycling - Reducing waste e.g.foodwaste - Extended Producer Responsibility schemes - Separate waste collection	-Primarily: Waste management -Secondarily: Agriculture in terms of sludge, animal waste, manure, animal byproducts, foodwaste,Construction in terms of C&D waste and waste management infrastructureRemaining sectors in more general terms.	

Name of the Strategy/ Policy doc.	Circular economy principles covered	Circular economy principles not covered*	Tags	Sectors addressed
Forestry Development Strategy for Kosovo 2021-2030	- Wood waste addressed to a limited extent - an acknowledgment of the problem and mention of the underused potential - Recommendations include: - Forest management, given the threat of illegal and unaccounted logging, and coupled with forest monitoring - Increasing the forest area through afforestation, reforestation and natural regeneration - Afforestationand restoration of degraded forestlands - Inclusion of forestry in government support schemes and development of cooperation with financial institutions and the general public - Value chain collaboration: encouraging the development of associations of private forest owners, processors, aggregators and users in order to strengthen their capacity to implement sustainable forest management Raising issue of illegal forestry and logging waste - Increasing the value and productivity of forests through multi-purpose use, including ecotourism - Multipurpose forestlands - Digitization of forest data and operationalization of the Information System for Kosovo's forests - Increasing and maintaining the optimal quality and density of forest roads, as well as supporting infrastructure - Regulation of the use of wood forest products - In this context, capacity building and creation of jobs (green jobs) as well as support for associations and cooperation are included among the objectives	- Forest management could be addressed more comprehensively - The circular economy and bioeconomy are not addressed directly, with some principles only partially. Both models can support actions for climate change mitigation and adaptation and the sustainable development of forests - Upper levels of the circular economy principles are not included and forest-based products could be addressed more comprehensively - Regenerative approaches and synergies with the agrifood sector towards circular rural development	- Wood waste (limited) - Forest management - Afforestation and reforestation - Regeneration of nature - Multipurpose use of forests and ecosystem services - Ecotourism - Green jobs - Decarbonization partially - Sustainable forest management - Bioeconomy partially - Byproduct valorization	- Primarily: forestry and forest-based production - Secondarily: agriculture and rural development, construction and transport in terms of supporting infrastructure, and energy from forest-based products, waste management in terms of forest waste caused by illegal forestry and logging - Education in terms of capacity building and professional opportunities in the forestry sector, but also awareness raising about the forest system
Strategy for Agriculture and Development Kosovo 2022-2028	- The strategy includes several principles of the circular economy, the bioeconomy and the European Green Deal - It clearly analyzes the challenges of the agroforestry and rural systems, as well as the institutional needs - The strategy recommends that MAFRD should support research projects related to agriculture and rural development, including bioeconomy/circular economy	- Beyond mentioning them, there is no further elaboration of the circular economy or bioeconomy concepts and models - Water sources and water quality are addressed, but water management in connection to climate change adaptation through circular practices would	- Agroforestry - Organic agriculture and reducing the use of synthetic fertilizers and pesticides - Rural development - Mention of bioecono- my - Mention of circular economy - Food security - Climate change mitigation	- Primarily: agriculture, food processing, and forestry - Secondarily: waste management in terms of agricultural biowaste streams, education in terms of the need for training for agriculture workers and farmers, transport and supporting

Name of the Strategy/ Policy doc.	egy/ principles covered principles no		Tags	Sectors addressed
	- Reduction of pollution due to poor waste management, improper use of pesticides and improper agricultural practices - Recognizes the need to support projects related to circular economy and bioeconomy in terms of rural development and sustainable development of agriculture - Support and protection of natural biodiversity - Farm to fork (mentioned), promotion of local animal breeds, local products, short supply chains; the importance of increasing organic agriculture and reducing intensive agriculture and synthetic fertilizers and pesticides are highlighted - Economic diversification of farmers and agriculture - Agrotourism, local tourism for rural development - There is a specific objective devoted to sustainable food, reduction of food waste, and animal welfare. Other strategic objectives are addressing climate change mitigation and adaptation, support to sustainable farm income, flexibility to increase food security and improving the position of farming in the value chain - Due to the specifics of the sector, the MAFRD is preparing a dedicated strategy for forestry for the period 2021-2030 - Acknowledges the importance of the threat from intensification and linear practices	also be highly relevant - It mentions the EU Biodiversity Strategy 2030 but fails to address the biodiversity link to regenerative agricultur- al practices	- Climate change adaptation - Farm to Fork - Rural and ecotourism - Economy diversification - Organic agriculture - Biowaste streams valorization - Biofuels - Short value chains - Biodiversity - Water management - Resilience - Biodiversity	infrastructure, energy in terms of biofuels and RES, tourism in terms of rural and ecotourism
Strategy for Local Economic Development 2019-2023	- The Strategy recognizes the agricultural sector as one of the priority sectors, participating with about 63% of the population's economy and accounting for 10.5% of GDP The Strategy further identifies some of the main challenges faced by the agricultural sector: small production areas, regular farm register updating, large number of farmers with small plots, ownership of agricultural lands, preservation of agricultural land use and consolidation of land for the needs of agriculture development - The Strategy recognizes industrial symbiosis between tourism and agriculture, tourism and the construction sector and tourism and craft industries	- The strategy does not recognize the circular economy concept at all - Although it discusses improvement of transport infrastructure, it does not recognize the concept of circular mobility - Although it emphasizes agriculture as a priority sector, it does not recognize its further development potential through transition to the circular economy	- Industrial symbiosis between tourism and other economic sectors - Complementary infrastructure	- Agriculture - Tourism - Construction - Craft industries - creative sector - Transport as horizontal area

Name of the Strategy/ Policy doc.	ntegy/ principles covered principles n		Tags	Sectors addressed
	- To a certain extent the Strategy tackles the impact on the environment of the requirements for the infrastructure improvement, recognizing the need for a fully integrated transport system			
Country Development Cooperation Strategy - Kosovo 2020-2025	- The strategy emphasizes the need to strengthen private sector capacities and ensure sustainable economic growth as one of the priority areas to further engage the private sector as a partner for innovative ideas on governance reform, enabling the business environment, energy reform, and ideas to incite active engagement by young people, women, and minorities - The strategy discusses USAID's focus on new energy creation and diversification, and MCC (Millennium Challenge Corporation)'s focus on energy efficiency, distribution, and exploring gasification infrastructure necessary for Kosovo's energy security - The strategy further emphasizes the Government's efforts in undertaking a series of important reforms in the power sector aimed at liberalizing and developing the Kosovo energy market	- The strategy does not cover the aspect of circular economy at all: it merely focuses on energy efficiency, energy resilience and reliable energy	- Energy efficiency - Energy security - RES - No CE - Decarbonization (partially) - Energy management - Waste to energy - Biomass to energy	-All sectors
Analysis of the recycling value chain in Kosovo 2022	- The study is developed as part of the project "Mainstreaming circular economy in private sector in Kosovo" - Provides information on the concept of circular economy and the role of recycling as one of the key aspects of circular economy - Recognizes the lack of knowledge and understanding of the circular economy within the private sector in Kosovo - Emphasizes the importance of investing in new technologies to foster innovative advances that are essential to the circular economy model, in the sense of enabling the shift by providing tools that are able to lower costs, automate tasks and create economic value - Emphasizes the legislative barriers to the implementation of the process in practice, and the need for new legislation to include relevant circular economy concepts and terminology, and	- The study focuses solely on the concept of recycling as one of the circular economy principles - the 'end-of-pipe' - but does not cover principles such as redesign, reuse, reduce, sharing, remanufacturing, repurposing etc. to prevent waste from being created in the first place - upstream solutions	- Recycling - Waste management - Economic value from waste - Waste as resource - Circular policy - Awareness and circular culture - Wastewater treatment for discharge	-All sectors -Education as horizontal area

Name of the Strategy/ Policy doc.	Circular economy principles covered	Circular economy principles not covered*	Tags	Sectors addressed
	provide facilities to persons and entities that are in one way or another contributing to circular economy practices - Emphasizes the lack of public awareness of the benefits of circular economy along with the lack of state financial support to stimulate the transition - Highlights the fundamental need for stakeholders such as donors, government agencies and business associations to engage and contribute to raising awareness on the transition to the circular economy - Recognizes the need to establish a Circular Economy Hub/Cluster within Kosovo Chamber of Commerce to support member companies in adapting and implementing circular economy business models in their production cycle and everyday operations through training programmes, technical support, networking events etc. It further recognizes the need to provide support to all companies operating in different industries - Suggests green entrepreneurship and circular economy training programmes/workshops for businesses, to increase awareness of the benefits of using green technologies. It further proposes educational and outreach campaigns to educate the public and advocate with municipalities/institutions to provide the primary infrastructure for waste separation. It also outlines collaboration with local schools to develop educational materials to incentivize students to pursue green careers.			

Financial opportunities 155

Project title	Organization	Amount	Project details
GROW (Green Recovery and Opportunity Window)	Millennium Foundation Kosovo (MFK)	€ 6 million	Objective: To support businesses in Kosovo to invest in renewable energy and energy efficiency. The Green Recovery Window of Opportunity (GROW), with €6 million donated by the German government through KfW Development Bank, provides free technical assistance to businesses investing in renewable energy and energy efficiency in order to reduce their business operating costs. By assessing personalized business needs and providing advisory services throughout the application process, technical assistance will help businesses increase their chances of financing their investments through commercial lending. So far, ProCredit Bank is one of the partner financial institutions who will offer these services to its clients. More information on Project details available: https://growkosovo.com/Link: https://millenniumkosovo.org/grow-new-credit-guarantee-window-for-energy-investments-launched/
Development of an Inter-munici- pal Integrat- ed Waste Management Plan and an Inter-Munici- pal Coopera- tion Agree- ment (IMCA)	EU and GIZ	€ 35 million	Objective: Together with the ongoing Institutional development to modernize waste management in Kosovo project, this project envisions development of an Inter-municipal Integrated Waste Management Plan (IIWMP) and an Inter-Municipal Cooperation Agreement (IMCA) for joint work in the waste management sector. This project aims to address the needs of municipalities for support in creating an integrated waste management system in line with targets, national legislation and European standards. The implementation of IIWMP will be the next step in the establishment of an integrated waste management system (IWMS), which started with the current EU-German funded project for construction, expansion and rehabilitation of landfills and transfer stations for solid waste in the region, worth € 35 Million. Link: https://www.eeas.europa.eu/delegations/kosovo/eu-german-funded-project-helps-develop-joint-waste-management-system-pristina_en?s=321
GREEN CROSS - Towards Local Green Economies with Smart Investments - Municipalities of Klina and Peja	EU Commission	€501,054	Objective: To contribute to sustainable economic growth in the region by enabling the transition of the selected municipalities to a green economy through integrated policy, smart public investments and capacity development. Implementing Partners: Balkan Green Foundation (lead applicant), Qendra Mjedisore për Zhvillim, Edukim dhe Rrjetëzim (Qendra EDEN), Municipality of Klina, Municipality of Peja; Link: https://www.eeas.europa.eu/delegations/albania/green-cross-%E2%80%93-towards-local-green-economies-smart-investment s_en

¹⁵⁵ Please note that this list of financial sources is non-exhaustive, serves solely for the illustrative purpose of representing a currently selected set of projects and is subject to change. For details on how to apply, please visit each institution's website.

Project title	Organization	Amount	Project details
Green Loan GGF	Kreditimi Rural iKosovës - KRK, EBRD support- ed	€ 10,000	Objective: To contribute to increased energy efficiency. Activities that are supported by green lending are: • Thermal insulation of home walls, • Insulation of the floor, ceiling and roof, • Replacing windows, • Installation of solar water heating systems, • Replacing heating pumps, etc. Product features: • Loan amount from €200 to €10,000 • Maturity 6 to 60 Months • No grace period • Monthly repayment Link: http://krk-ks.com/en/kredi-e-gjelbert/
GEFF Programme in the Western Balkans	EBRD GEFF - financing through: Raiffeisen Bank, ProCredit Bank, Kreditimi Rural iKosovës (KRK), Agjencionipër- Financi- mnëKosovë (AFK), KEP Trust	€ 15 million	Objective: The EBRD-GEFF Programme in the Western Balkans secures funds for household investments in energy efficient technologies. This includes the installation of heat pumps, efficient windows and doors, thermal insulation, solar PVs, etc. The Programme supports household investments in green technologies by providing an incentive of up to 20% from the European Union. Thus far, the GEFF Programme has been responsible for improving the energy efficiency of approximately 13,000 households in the Western Balkans, more than 1,200 of which are located in Kosovo. The GEFF Programme offers an online catalogue of energy efficient products called the Technology Selector, in which potential lenders can review energy efficient products. All of the products available have been examined and approved by independent engineers engaged directly by the EBRD. Loans distributed: ■ €1.5 million to Agency for Finance in Kosovo (AFK) ■ €4 million loan to KEP Trust, borrowers eligible for 20% cashback of the total investment ■ €2.5 million to Areditimi Rural iKosovës (KrK) Link: https://ebrdgeff.com/kosovo/en/heat-pumps-enjoy-a-comfortable-living-environment-while-spending-4-to-5-times-less-energy/

Project title	Organization	Amount	Project details		
Kosovo SME Competitiveness Support Programme	EBRD	€ 1 million of cumulative loan value with 15% grant per company	Objective: To assist privately-owned SMEs to meet the new regulations and to understand the improvement requirements in the fields of environmental protection, occupational health and safety and product quality and safety. The Programme was developed by the EBRD and grant incentives and technical assistance are funded by the European Union national Instrument for Pre-Accession (IPA) in Kosovo. The Programme offers loans made available by the EBRD via local Partner Banks, combined with a 15% grant funded by the EU IPA, to help SMEs make targeted investments that improve their competitiveness. The Programme is complemented by technical assistance to help SMEs optimize their investment requirements for upgrading towards compliance with priority EU directives. Projects can be financed with one or several loans with a cumulative value of up to € 1 million per company. More information found in the brochure available here: https://web-sme-csp.com/kosovo/wp-content/up-loads/sites/3/2019/04/Brochure-Kosovo-WEB.pdf		
	Banka për Biznes (BPB)	€ 5 million loan	Objective: The funds will support local small businesses to reach best industry standards and implement EU directives. The aim is to encourage SMEs to invest in upgrades in three key areas: environmental protection, health and safety, and product quality. At least 60% of all loans will support energy-saving investments.		
	ProCredit Bank	€ 20 million loan	Objective: Within this package, SMEs can receive grants up to 15% of the project value (VAT is not included in the calculation of the grant) for bank loan-funded projects. Loans that are allowed to finance these projects have the following characteristics: • Loan maturity up to 15 years; the maximum loan/loans amount within the programmeis € 1,000,000; • A part of the project that exceeds € 1,000,000 may be funded by the Bank through regular loans; The package supports investment in new equipment, new machinery, or renovation or construction of business facilities that meet the following criteria: • Improves compliance with one or more EU directives in the field of environmental protection, worker safety and product quality and safety; • All investments are in high performance technology: renewable energy; energy efficiency; investments in buildings that must meet certain criteria; climate adaptations that rationalize the use of water. Link: https://procreditbank-kos.com/eng/business-clients/loans/web-sme-csp/		
	Raiffeisen Bank Kosovo	€ 5 million loan	Objective: The EBRD is providing a €5 million loan to Raiffeisen Bank in Kosovo to boost the competitiveness of SMEs and help them bounce back from the COVID-19 crisis. Raiffeisen Bank will offer the funds to businesses looking to upgrade their technology, processes or services with a view to achieving European Union (EU) standards, particularly those related to product quality, workers' health and safety, and EU environmental requirements.		
	Raiffeisen Leasing	€ 10 million loan (€3+€7 million)	Objective: To offer small solar power generators and electric cars to local entrepreneurs and small and medium-sized enterprises (SMEs) as part of its leasing services. Part of the package (initially €3 million) is extended under the EBRD SME Competitiveness Support Programme, which assists SMEs to achieve compliance with EU standards, particularly regarding the quality of goods and services, environmental protection, and worker health and safety. Under this programme, SMEs can also obtain technical assistance, including EBRD advisory support. On successful completion of their investment, SMEs will be eligible for a cashback grant of 15% of the total loan amount both of which will be funded by the EU. The remaining €7 million will allow RLK to assist more local firms with its leasing services. It will also support smaller enterprises in investing in innovative strategies or products. Link: https://www.eeas.europa.eu/delegations/kosovo/ebrd-eu-raiffeisen-support-greener-leasing-kosovo_en?s=321		

Project title	Organization	Amount	Project details			
Technical assistance grant supporting a decarbonisation plan for the heating system in Prishtina and preparation of the district heating expansion project	EIB	€ 1.5 million	Objective: To finance the project preparation for the expansion of the district heating system in Prishtina by supporting the development of a decarbonisation plan for it, the preparation of necessary environmental and social impact assessments and project implementation. The project aims to help the Western Balkans increase energy security and support decarbonisation of local economies. The technical assistance will deliver a blueprint for Prishtina sustainable energy sector, helping the city to address challenges resulting from population growth, and will contribute to creating new jobs and business opportunities for companies while enhancing living conditions for people in Kosovo due to the more environmentally-friendly heating services available at affordable prices. The funds are being provided under the Economic Resilience Initiative (ERI) envelope of EIB Global Link: https://www.eib.org/en/press/all/2022-276-eib-provides-a-eur1-5-million-technical-assistance-grant-for-decarbonising-and-increasing-energy-efficiency-of-the-heating-system-in-pristina			
Green Loan	AFK	€ 25,000	Objective: These loans are for insulation works (the exterior of the building), equipment and machinery for businesses, insulation of stalls, agricultural machinery and purchase of appropriate household equipment. Loan Amount: Max. € 25,000. Return period: Max. 60 months.			
Women in Business programme	AFK, financed by EBRD	€2 million	Objective: To support women entrepreneurs and small businesses in Kosovo through a new financing package for the Agency for Finance in Kosovo (AFK), a microfinance institution. Some €2 million of the loan package will be allocated to supporting investments by women-led businesses. The funding is secured under the EBRD's Women in Business programme, which promotes women's entrepreneurship and their participation in business by providing access to finance and know-how. Link: https://www.ebrd.com/news/2022/ebrd-supports-small-businesses-and-female-entrepreneurs-in-kosovohtml			
Women in Business programme	KEP Trust, EBRD financed	€1 million	Objective: A €1 million loan for women-led businesses is being extended under the EBRD's Women in Business programme, which promotes women's entrepreneurship and their participation in business more broadly, by providing them with access to finance and know-how. The programme is supported by the governments of Sweden and Luxembourg. It is to help women entrepreneurs to further invest in their businesses, build skills and maintain business continuity through challenging times. Link: https://ebrdgeff.com/kosovo/en/ebrd-lends-e4-million-to-kep-trust-in-kosovo/			
Support to women entrepre- neurs in Kosovo	KRK, financed by EBRD	€3 million	Objective: The European Bank for Reconstruction and Development (EBF extending €3 million in funding to Kreditimi Rural iKosoves (KRK), a microfir institution in Kosovo. The financing, which Sweden is backing with grants technical assistance, will support investments by women entrepreneurs and businesses. As part of this funding, a €1 million loan for businesses run or owned by won being extended under the EBRD's Women in Business programme, promotes women's entrepreneurship and their participation in business broadly by providing them with access to finance and know-how. Some €2 million will be extended to other small businesses to boost entrepreneurship and competitiveness. It will allow enterprises to access funding to it in innovation in areas such as strategy, products, processes and marketing. Link: https://www.ebrd.com/news/2022/ebrd-and-sweden-supporten-en-entrepreneurs-in-kosovo.html			

Project title	Organization	Amount	Project details			
Boosting sustainable lending to MSMEs in Kosovo	European Fund for Southeast Europe (EFSE)	€15 million - loan to BKT	The European Fund for Southeast Europe (EFSE) has provided its longstanding partner BKT Kosovo with a subordinated loan of €15 million to provide sustainable financing to micro, small and medium enterprises (MSMEs), as well as to help the bank increase its agricultural lending, particularly for farmers across Kosovo. Link: https://www.efse.lu/news-events/all/newsdetail/efse-strengthens-bkts-capital-base-to-boost-sustainable-lending-to-msmes-in-kosovo-1			
Eko Loan	BKT and Green for Growth Fund (GGF)	€7 million subordinated loan	Objective: The Green for Growth Fund (GGF) states that it has provided a € 7 million subordinated loan to its partner BKT Kosovo. Proceeds will strengthen the bank's capital base and enable it to increase its energy and resource efficiency lending in urban and semi-urban areas of Kosovo to MSMEs and private individuals, and also to renewable energy projects. The facility aims to strengthen the bank's capacities to advance sustainable long-term green financing. The investment is expected to contribute 4,800 tonnes of CO2 emissions reduction per year and 21.8 GWh of annual primary energy savings, if it is split evenly between the retail energy efficiency segment, small firms and entrepreneurs, and energy efficiency and renewable energy on a corporate level. Under the Eco Loan, issued by BKT, this financing aims to invest in household appliances, houses or apartments, environmental protection and energy savings through investment in companies or businesses. Some of the measures that will be applicable within the Eco Loan: Insulation of exterior wall and roof buildings Replacement of exterior windows for homes or businesses Replacement of exterior doors for homes or businesses Replacement of exterior doors for homes or businesses Replacement of irrigation systems General conditions: Loan maturity: up to 5 years Payment methods: monthly installments Required collateral: real estate mortgage, but also equipment mortgage applies Links: https://bkt-ks.com/en/eko-loan and https://balkangreenenergy-news.com/ggf-provides-funds-to-bkt-for-energy-resource-efficiency-in-kosovo/			
Youth in Business programme	EBRD, BPB	€4.5 million loan to BPB	Objective: A €4.5 million loan will be provided to Banka përBiznes in Kosovo, which will on-lend the funds to local companies that are owned or managed by young entrepreneurs, and which are likely to be early-stage or micro companies and second generation businesses. Alongside finance, the EBRD will provide advisory services in the form of consultants, e-learning and training, all with a view to fostering youth entrepreneurship and financial inclusion in the region. The Swedish government will support the programme with a grant of €3.5 million to assist local partner banks to enhance their capacities and develop new financial instruments to help youth owners to further develop their businesses. Link: https://www.ebrd.com/news/2022/ebrd-youth-in-business-programme-launches-in-kosovo.html			
Young Entrepre- neurs Program	ТЕВ	€ 10,000 - grant for new entrepre- neurs	Objective: Through the Young Entrepreneurs Program, TEB Bank will be offering financial and non-financial services to young women and men (18 - 35 years old) with a business idea. Young Entrepreneurs by TEB will offer a range of tailored-services for young entrepreneurs at various stages of their development, and will establish an incubator to deliver the Bank's expertise and products. The goals of "Young Entrepreneurs" are: 1. Establishing the incubator "Entrepreneur House" 2. Bringing the bank closer to young entrepreneurs 3. Influencing positive and organic market growth 4. Implementing innovative solutions 5. Offering products and services customized for the needs of young entrepreneurs.			

Project title	Organization	Amount	Project details	
			Depending on the stage of the business idea, companies can benefit from loans and/or grants. For existing businesses and startups, the available loans are installment-based with favorable interest rates and term flexibility depending on the client's needs. The loans can be used for working capital or expansion of business activity. For young entrepreneurs who have a business idea but have not made out in the market yet, TEB will be offering grants of up to €10,000. The grant can be used to push the idea further and bring it to life. For more information please see: https://www.teb-kos.com/en/indexphp/per-biznes/young-entre-preneurs-perkrahje-per-ndermarresit-e-rinj-nga-teb	
COVID-19 pandemic impact mitigation	European Commission	€ 5.25 million	Objective: To help mitigate the impact of the COVID-19 pandemic and rapid increasing energy and food prices. Through this budget support payment the E assists Kosovo's financial liquidity for actions taken to support small businesse agriculture and vulnerable groups coping with financial hardship during th current difficult conditions. Link: https://www.eeas.europa.eu/delegations/kosovo/eu-contrik utes-further-eur-525-million-kosovo%E2%80%99s-budget-helps-small-busines es_en?s=321	
Small Grants Scheme	ment The Embassy of the Grand Duchy of Luxembourg to the Republic of Kosovo ment The Embassy of the Grand Duchy of Luxembourg to the Republic of For more information please see: https:		Objective: To support micro-projects. This fund is intended for development activities implemented by registered non-governmental organizations, communities or cooperatives that aim at enhancing socio-economic development and improving living conditions. The relevant fields include education, socio-economic empowerment, human rights, culture and health. The maximum single grant amount is €15,000 and activities should be completed within 12 months from the time the project agreement is signed. There is no minimum amount or timeframe for these projects, so small-scale and short-term activities are also encouraged. For more information please see: https://pristinamae.lu/en/News/Small-Grants-Scheme-Call-for-proposals-2022	

Engaged stakeholders

Public administration, institutions and international organizations



- Ministry of Environment, Spatial Planning and Infrastructure
- Department for Environment and Water Protection
- UNDP Kosovo
- Kosovo Agency of Statistics
- Mayor of Prishtina Mr. Përparim Rama
- GIZ
- ICK
- JICA
- Association of Kosovo Municipalities
- Ministry of Agriculture, Forestry and Rural Development
- Atdhetare Kelmendi (former GIZ representative)
- Ministry of Industry, Entrepreneurship and Trade
- Ministry of Economy
- Kosovo Environmental Protection Agency
- Ministry of Local Government Administration
- EU Office in Kosovo
- EBRD
- Kosovo Investment and Enterprise Support Agency
- Kosovo Food and Veterinary Agency (KFVA)

Civil Society Organizations



- Jeshil Fondacioni
- Bonevet
- Termokiss
- PAMKOS
- Balkan Green Foundation
- Let's Do It Peja
- EcoZ
- Ekovizioni
- Sustainability Leadership
- Kosova (SLK)
- Youth Ecological and Security Zone- EcoZ
- ISFF_HSP

Academia and Research



- University of Business and Technology (UBT)
- INDEP
- University of Prishtina
- Riinvest Institute for Development Research

Business/Private sector



- Kosovo Chamber of Commerce
- American Chamber of Commerce in Kosovo
- Kosovo Landfill Management Company
- Biotech Agriculture
- Kosovo Glass Recycling
- Termoinverz
- Botanic LLC
- Tiki Mosaic
- DYVO
- KIVO
- REKS LLC
- Art Construction LLC
- GoBeyond
- Devolli Group
- New Prishtina Mall
- Kiwer
- JAHA Group
- Rrënjët Tona
- Dijamanti
- Finance in Motion
- Raiffeisen Bank Kosovo
- Hib Petrol
- COMINGPE
- BandA
- Powerpack
- Outdoor Kosovo
- EcoKos Women
- EcoKos
- Zinkunie
- LandbellGroup
- Social Enterprise and Recycle (SEREC)
- Sylka SHPK
- Vitafood
- ELEN
- Laberion
- ONLINE
- Metalbau
- PLASTIKA
- NLB
- Duglas
- Scampa
- Rccola
- Moneta
- Kosovo Manufacturing Club
- Viva Fresh
- KfW Kosovo
- Banka Ekonomike

The color bold-type stakeholders are the ones who were directly interviewed or were the part of the Working Group. The list does not include all the institutions that participated in the series of workshops held during the creation of the Roadmap. Moreover, the list is non-exhaustive as many other stakeholders that were not identified can find themselves fitting in one of the 4 groups.



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