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REGIONAL REPORT

TOWARDS REGIONAL CIRCULAR SUPPLY CHAINS: KNOWLEDGE EXCHANGE FROM VISEGRAD COUNTRIES (V4) TO WESTERN BALKANS (WB)

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BACKGROUND

The project "Towards Regional Circular Supply Chains: Knowledge exchange from V4 to WB" aims at supporting circular practices in the Western Balkans (WB) countries by using the experience from the Visegrad group (V4) – a regional format of cooperation between four Central European countries: Poland, Czechia, Slovakia, and Hungary. The project serves as a starting point for cross-regional exchange of know-how in the area of circular economy and exploring potential support needed to different stakeholders, policy makers, SMEs, and other in improving the circular transitions in the countries and regions. The initiative began by mapping the state of circular economy in both regions and gathering sector-specific information about the main obstacles to implementing the circular economy principles in the WB countries which are official candidates or countries in accession negotiations for becoming EU member states.

This report tries to capture the regional context of the independent national analyses conducted in all partner countries identifying the local contexts, needs, barriers, challenges, and opportunities for exchange of experience and circular economy implementation. The mapping of national specificities, and legal and policy landscapes was critical for understanding the specific geographic, and socio-economic contexts in which economic system aimed at minimising the use of resource inputs will be applied. Sector-specific information was collected to identify the main obstacles and opportunities for circular economy implementation. This involved analysing various industries such as manufacturing, agriculture, and waste management to pinpoint where interventions can be most effective. The national reports also include case studies to gather insights into the current state of circular practices and initiatives and the obstacles they face. The findings from this research will inform targeted interventions and strategies to support the circular transition, ensuring that they are tailored to the specific contexts of each country.

Main findings of the research were already presented during the regional conference "The Undeclared: Political, Economic, and Sustainable Future of the Western Balkans", that took place in Skopje on 27-29 May 2024. Additionally, in order to collect more feedback from the conference participants, an interactive workshop on circular supply chain took place. The conference served as a platform for dialogue between policymakers, businesses, and other stakeholders and aimed to foster collaboration and ensure that the policy recommendations are aligned with the needs and capabilities of the region [1]. The consortium was also invited to present the findings at the Montenegrin International Conference on Economics & Business, "Green entrepreneurship and innovation" taking place on 12 - 13 September in Podgorica, Montenegro.

Based on this regional research's findings the project partners produced a regional policy brief to inform policymakers about the necessary actions and reforms to facilitate the circular economy transition. The regional policy brief provides evidence-based recommendations and highlight best practices from within the V4 and the WB regions, included in this report too.

[1] https://crpm.org.mk/comprehensive-report-from-the-undeclared-political-economic-and-sustainable-future-of-the-western-balkans-conference/

CIRCULAR ECONOMY IN THE WB AND V4: SITUATIONAL ANALYSIS

A circular economy represents a systemic shift from the traditional linear economy model, which follows the 'take-make-dispose' pattern, to one that is regenerative by design. It emphasises the continual use of resources, reducing waste, and fostering sustainable economic growth. By focusing on reusing, repairing, refurbishing, and recycling existing materials and products, the circular economy aims to close the loop of product lifecycles through greater resource efficiency.

The importance of transiting to a circular model of economy ranges from environmental benefits (resource conservation, waste reduction, lower carbon emissions), economic benefits (cost savings, job creation and upskilling, market competitiveness) and social benefits (community engagement and improved health and well-being). It is important to understand that the transition to circular economy goes beyond adjusting the existing linear economy mechanisms to lessen their negative impact. It represents a systemic shift towards long-term resilience, generating business and economic opportunities, and providing environmental and societal benefits. The concept recognises the importance of an integrated approach at all levels – for large and small businesses and for organisations and individuals. Circular economy initiatives often involve local communities, fostering social cohesion and collective responsibility towards environmental stewardship.

Moving towards circular economy is crucial in preserving environment and help mitigate the effect of the climate change. But it is not just an environmental issue. As stated before, it makes social and economic sense to make better use of the scarce resources that we have. There is an abundance of research on the subject showing that decoupling the economic growth from unrestrained use of natural resources can in fact create economic opportunities amounting to 4.5 trillion USD by the end of the decade [2].

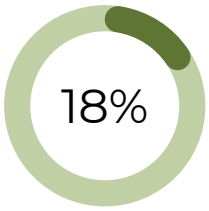
Systemic changes coupled by advances in digital technologies can underpin the emergence of circular economy. It is important that sustainability does not depend on consumer choices so there is much to be done on the policy side to incentivize circularity at the systems level.

Since 2015, many organizations all around Europe have actively gotten involved in helping accelerate the transition towards the circular economy after the First Circular Economy Action Plan was adopted by the European Commission [3]. The action plan established concrete and ambitious actions, including measures to help stimulate Europe's transition towards a circular economy, boost global competitiveness, foster sustainable economic growth, and generate new jobs. The circular economy is a crucial element of the European Green Deal, and it is of paramount importance to implement the principles of circular economy in the countries aspiring to be EU members. Here is an overview of the situation and latest development in the area of circular economy in the V4 and WB countries [4].

[2] Waste to Wealth, Accenture Strategy (2015)

ALBANIA

Albania faces significant environmental challenges, including waste management, water and air pollution, land degradation, and biodiversity loss. Despite an ambitious National Strategy on Waste Management drafted in 2011 to align with EU regulations, sustainable waste management remains at a relatively low level. Urban waste management services cover about 87.9% of the resident population, mainly in urban areas, showing an increase from previous years. In 2022, urban waste generation reached approximately 1.2 million tonnes, marking a decrease from the previous year, with 78% disposed of in landfills, many of which are illegal and substandard.



Recycled household waste

Waste in landfills

Albania's waste management issues are exacerbated by poor waste disposal site choices, inadequate infrastructure, insufficient waste collection vehicles, and weak law enforcement. Efforts to close illegal dumpsites include plans to build 12 regional controlled landfill areas. However, the closure of these sites still poses environmental risks without proper rehabilitation.

The recycling sector is underdeveloped, with about 60 recycling companies having a total capacity of 500,000 tonnes. Only 18% of household waste is recycled, and more than 80% ends up in landfills. The concept of a circular economy is at an early stage, with the government working towards integrating "zero waste" principles into its policies.

Recent initiatives, such as the EU and German Federal Ministry for Economic Cooperation and Development's project launched in 2023, aim to assist Albania in developing an improved waste management legal framework and promoting circular economy measures in 15 municipalities. Recommendations for improving waste management in Albania include closing illegal landfills, providing economic incentives for green products, developing sustainable waste treatment policies, and enhancing law enforcement.

NORTH MACEDONIA

North Macedonia, an upper-middle-income country in the Western Balkans, has shown considerable economic reform since its independence. The country is required to harmonize its legislation with the EU Acquis, including policies for a circular economy. The European Green Deal and the Green Agenda for the Western Balkans guide these efforts, focusing on climate neutrality and zero pollution by 2050. North Macedonia has made some progress in reducing material consumption, but issues like low productivity and inadequate waste management persist.

[3] European Commission, First Circular Economy Action Plan (2015)

[4] References to all the data in the summaries can be found in respective national reports.

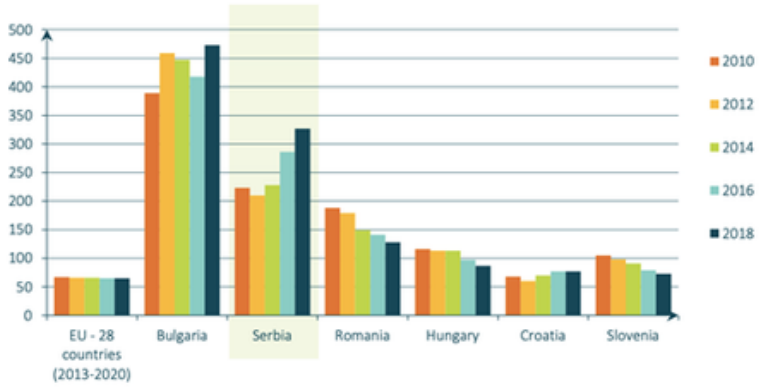
Waste in landfills

The country's economy relies heavily on services, industry, and agriculture, with the largest industry being metallurgy, followed by textiles, both characterized by low recycling rates. The waste management system is primarily collection and disposal-focused, with 98.8% of waste ending up in landfills or dumpsites.

Only two landfills meet national standards, and there are over 1,000 dumpsites due to a lack of organized waste collection services, especially in rural areas. Recent laws adopted in 2021 aim to improve waste management, but further reforms and financial investments are needed.

SERBIA

Serbia's circular economy efforts focus on robust business models and innovations to meet evolving consumer demands. The country has significant natural resources, including water, forests, and agricultural land, but faces challenges in sustainable resource management. Water usage is high, with industry being the largest consumer. The country has adopted a national waste management strategy and other laws to improve waste management practices. Data show that Serbia, with its 327 kg of waste per EUR 1000 of GDP in 2018, is very far from the European average. Although GDP growth in Serbia has growing trend, the economy failed to generate less waste.



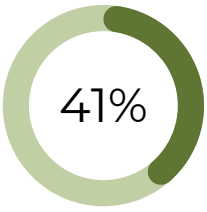
The country has introduced extended producer responsibility principles and green public procurement criteria to promote circular economy practices. However, regional disparities, lack of awareness, and limited financial resources hinder progress. The country aims to strengthen legislation, improve enforcement mechanisms, and promote stakeholder engagement to transition towards a more circular economy.

Serbia's waste management system relies heavily on collection and disposal, with inadequate recycling and treatment facilities.

POLAND

Poland has seen significant economic growth, almost doubling its GDP over the past 20 years. However, this growth has led to increased material consumption and environmental challenges. Poland's resource productivity and circular material use rate are below the EU average. The country generates around 20 tonnes of raw material per capita, significantly higher than the sustainable level of 8 tonnes.

Municipal waste in landfills



Municipal waste recycled

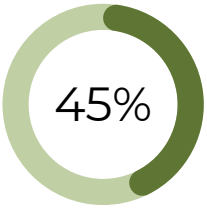
Despite improvements, the country still landfills 38% of municipal waste, and only 41% is recycled. The country faces challenges in increasing recycling rates and developing comprehensive circular economy policies. Efforts include the adoption of the Roadmap for Transformation towards a Circular Economy and regional development strategies aimed at promoting circularity. However, outdated and fragmented legislation, low innovation levels, and lack of financial incentives hinder progress.

The circular economy rate stands at 10.2%, with a high reliance on coal and other non-circular fossil fuels.Poland's waste management follows a five-stage hierarchical strategy prioritizing waste prevention, reuse, recycling, and recovery.

SLOVAKIA

Slovakia's economy is resource-intensive, consuming more materials than its natural capacity. The country has made progress in increasing recycling rates and reducing waste production, but challenges remain. Municipal waste production is lower than the EU average, but the recycling rate is still below targets. Slovakia aims to reach 55% recycling by 2025, but fragmented waste management and lack of facilities pose significant challenges. The country has implemented policies to promote eco-innovation and circular economy practices, but investment in R&D is low.

Rate of use of recycled materials



Municipal waste in landfills

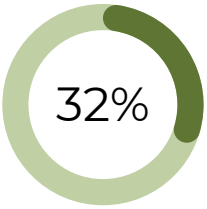
Slovakia's circular economy strategy includes measures such as green public procurement and extended producer responsibility. The later includes functional deposit return system for selected beverage packaging. Despite having adopted a roadmap for implementation of circular economy, clear political support is missing as well as an action plan with clear targets and an allocated budget. The country also focuses on improving waste management infrastructure and enhancing stakeholder collaboration to achieve circular economy goals.

HUNGARY

Hungary has made some progress in resource productivity but lags behind other Visegrad Group countries and the EU average. The country faces challenges in increasing material circularity and reducing greenhouse gas emissions. Waste management practices have improved, with increased recycling rates and reduced landfilling. Despite changes in waste management systems, Hungary still landfills a relatively high proportion (50% or more) of municipal solid waste, and recycling rates lag behind the EU-27 average.

Recent policies include the National Waste Management Plan and the introduction of a deposit return system for beverage packaging. Despite these efforts, challenges such as limited consumer awareness, inadequate infrastructure, and lack of financial incentives hinder the transition to a circular economy.

Municipal waste in landfills



Recycled waste

Hungary's circular economy strategy focuses on three main areas: biomass and food industry, construction sector, and plastics. The country aims to achieve significant improvements in resource productivity, circular material use rate, and job creation related to the circular economy by 2040

The Visegrad and Western Balkan countries face similar challenges in waste management and transitioning to a circular economy

Despite various national strategies and efforts to align with EU policies, these countries struggle with high reliance on landfilling, inadequate recycling infrastructure, and fragmented waste management systems. Common obstacles include weak law enforcement, insufficient financial resources, outdated legislation, and limited public awareness. While some progress has been made, particularly in adopting circular economy principles and improving recycling rates, the implementation of these strategies is often hindered by political, financial, and infrastructural constraints. To advance towards a sustainable circular economy, these countries need stronger enforcement of environmental laws, enhanced stakeholder collaboration, targeted investments, and comprehensive action plans with clear targets and allocated budgets.

[5]Ranking European Countries on the Basis of Their Environmental and Circular Economy Performance: A DEA Application in MSW (2020)
[6] Building a Circular Future, Ten Takeaways for Global Changemakers, J. Cramer (2022)

COMPARATIVE ANALYSIS

When it comes to V4 countries, the political and regulatory push towards circular economy and climate neutrality in EU in general, has traditionally been met with a degree of reluctance. The convergence to green targets represents a particular challenge for these economies, given their fossil fuel-intensive industrial orientation and the high labour market exposure of certain regions to coal mining. Hence, progress with the circular economy in the region has been mixed. The V4 countries are not among the most advanced in the EU in terms of recycling and the use of the circular economy [5]. However, developments in the past several years suggest significant improvements as noted in the national reports. The expansion of renewables has been scaled up in Slovakia and partially in Poland but has been stagnating in Czechia and even decreasing in Hungary. Still, the V4 has accomplished a remarkable catch-up in enhancing its energy efficiency in recent years, albeit still belonging to the most CO2-intensive regions in Europe. There are numerous obstacles to the transition to circular economy in the region, including lower starting points creating path-dependencies, lesser (albeit growing) social recognition of the climate crisis, and the fear of social fallout due to relatively high employment in the coal and automobile sectors. It is also worth mentioning the antagonistic relationship between government and the industry as a result of traditionally antagonistic societies (as opposed to consensus-oriented ones) that results in lack of political will to move things forward.[6] At the same time, the Russian aggression against Ukraine has revealed the vulnerabilities of fossil fuel dependency, and as a result has broadened the pro-green-transition coalition. While it remains to be seen whether this momentum will turn into action, it is important to note that things are improving.

However, there are still some challenges that need to be addressed. Poland has reported outdated and fragmented legislation with remedial actions that have been considered short-termed and inconsistent [7]. This, coupled with inadequate implementation results in harmful practices and undermines the sustainability principles. Similarly, OECD report on Hungary [8] noted that implementation mechanisms for their national waste management plan are not effective enough and that the country is lagging behind in the adoption of the circular economy in the society.

[5]Ranking European Countries on the Basis of Their Environmental and Circular Economy Performance: A [illegible] Application in MSW (2020)
[6] Building a Circular Future, Ten Takeaways for Global Changemakers, J. Cramer (2022)
[7] Diagnostic Analysis for Circular Economy Interventions in Poland, World Bank (2023)
[8] Towards a National Circular Economy Strategy for Hungary, OECD (2023)

It appears that most of the policies and regulations in V4 focus on waste management and energy production rather than on changing material production and usage patterns. Based on material flow and resource productivity indicators, it is evident that the current performances of the V4 in the implementation of the circular economic model are below the EU average. However, it is noticeable that the changes are more positive than the EU average which leads to a moderate relative decoupling of domestic material from the GDP. [9] This is a promising development and the wide range of policy measures taken by V4 countries have provided the needed support to the transition process. Here are some of the **results:**

Resource productivity has improved significantly in V4 countries since the turn of the millennium;

The rate of municipal waste recycling is catching-up with the EU average;

The circular material use ratio is below but close to the EU average;

Domestic material consumption has decreased in the Czech Republic and Hungary, while it increased in Poland and Slovakia;

The landfill rate is declining slowly in all V4 countries in recent years, but it is still well above the EU average.

The situation in the WB countries is slightly different. The issues are similar, but the extent and the depth of the problems goes beyond those experienced in V4 group. There are country specifics, but most of the obstacles in for the transition to circular economy can be **summarized in several categories:**

[9] Circular economy policy-related national initiatives in Visegrad countries, E. Szabo (2020)

- **Lack of effective policy and regulatory framework** to stimulate sustainable practices with insufficient enforcement and integration of these instruments. The reasons are multi-fold, but it comes down to lack of sub-legal frameworks, lack of proper monitoring, low number of inspectors, lack of experienced and skilled workers, corruption, and insufficient financial capacity. There is very limited number of entities that are responsible for the integration and control of policy compliance in the WB countries. Despite the legal mandates in place, there are businesses that operate without environmental permits in several countries in the region.

- The **concept of circular economy** as well as its principles and their integration in strategies and plans is **still in early stages in this region**. Most early developments have been taking place in the area of waste management, frequently based on the needs (and pressures) to harmonise EU directives and policies. Almost all national policies focus on the improvement of waste management through circular economy principles, but effective implementation is lacking. The current situation of waste management in WB countries still faces numerous challenges.

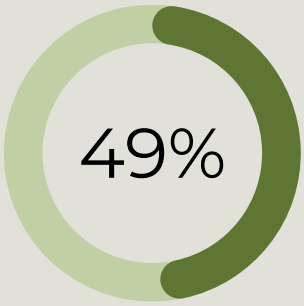
- As a result, the **WB countries rely heavily on landfilling, with limited recycling and waste treatment facilities**. The current waste management systems are almost entirely reliant on collection and disposal. The landfilling of collected waste ranges from 78% (Albania) to 99.7% (North Macedonia) and that does not include the large quantities of waste that end up on dumpsites. Regional waste management concepts have been introduced in most of WB countries, with limited success due to the process that failed to create a sense of ownership with the stakeholders and left them with very little understanding of the system's overall purpose and required changes in practices and attitudes.

- **Insufficient infrastructure for waste collection, sorting, and processing** impede circular economy efforts in the WB. Proper infrastructure is essential for effective recycling and resource recovery. Also, advanced technologies required for circular economy practices, such as recycling and waste-to-energy technologies, are not readily available or affordable. Most of the infrastructure is provided through EU funds or development banks grants but implementation of those projects is plagued with difficulties due to lack of coherent political will, weak institutions, corruption, and genuine lack of qualified staff.

- There is **chronic lack and inaccuracy of available data** that limits the reliability of any data analysis and planning processes which hinders decision making and makes impossible to measure performance effectively. Data collection and analysis is sporadic, inconsistent, and rarely used for decision-making purposes. Most of the waste management data, for instance, are estimates that are incoherent and not validated. Similarly, data on the share of green public procurement is absent across the region which implies a lack of monitoring. These mechanisms are frequently prone to corruption.

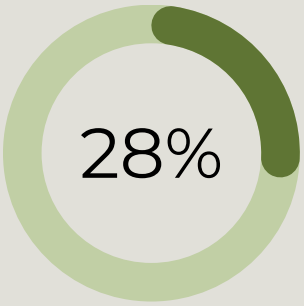
- There is **no integrated approach** to circular economy at the national level in the WB countries which coupled with limited multi-sectoral coordination hinders the needed transition to greener business practices. Policy co-ordination has been a longstanding issue in the region and there are serious institutional gaps that need to be bridged to facilitate improvements in the management of the complexities of governance and to deliver on government-as-a-whole agendas (and circular economy mandates this kind of approach) amidst all the interlinked problems faced by national and local governments. Policy coordination concerns not only the structures to which specific responsibilities are assigned but also the mandates they are bestowed with and their capacity to deliver.

These types of incentives and safety nets are not available in the WB, but there is more to it. As stated before, the entire concept of circular economy is in its infancy in the region and the conditions are not ripe for widespread circular transition. The Regional Cooperation Council (RCC) Western Balkans Green and Circular Economy Stakeholders Platform[10] points out that most of businesses in the WB consider it cheaper to produce a new product than a recycled one due to additional cost (49%), lack of skills and expertise (30%), lack of a regulatory framework (28%), and lack of government subsidies (29%). Their Balkan Barometer reveals that only 30% of business owners see climate change as a problem for their businesses, while 43% believe the green transition will not have any impact on their business. Unfortunately, more than a third of businesses do not engage in any activities to reduce the environmental impact of their businesses.

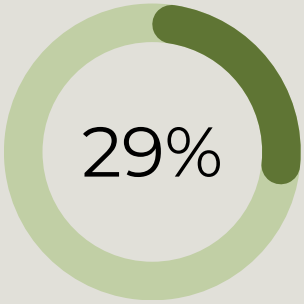


Additional cost for a recycled product

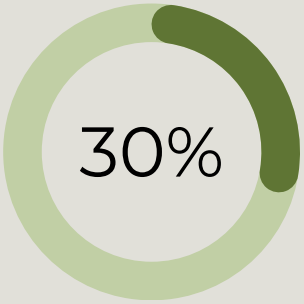
Lack of skills and expertise



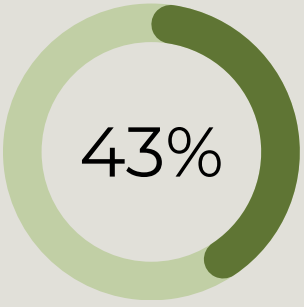
Lack of a regulatory framework



Lack of government subsidies



Business owners see climate change as a problem



Believe the green transition will not have any impact on their business

[10] RCC launches Western Balkans Green and Circular Economy Stakeholders Platform as part of the Green Agenda for the Western Balkans -

The national reports point out to some of the factors that corroborate these claims.

- **Fiscal and financial instruments** related to the environment, like tax policies, are poorly developed and integrated. There is no noteworthy revenue from environmentally related tax policies and subsidies or fiscal benefits for green or circular economy business development are virtually non-existent across the region. The “polluter pays” principle and extended producers responsibility schemes have been introduced in the WB through respective waste management laws and regulations. However, enforcement and integration of these concepts into wider national policies leaves a lot to be desired.

- Lower level of **Innovation and R&D** and business structures that are less complex are something that characterise the WB countries. There are very few clean technology entrepreneurs, and the green business industry is predominantly product based. There is very little initiative and incentives to innovate in the area of new business models. This is due to low level of expenditures in R&D across the WB countries.

- **Consumer awareness** is another thing that is considered to be low across the WB countries which is connected to low demand for sustainable consumer goods. Low purchasing power is considered the main driver for consumer consideration. There is also the issue of status that is linked to sustainable consumer behavior that hinders demand. Awareness campaigns related to circular economy remain limited unless are focused on waste disposal and recycling.

- **Funding opportunities** for green and circular businesses tend to be limited across the region due to lack of economic and political stability and longer periods of return on investment in environmental projects which limit the appeal for investors and state funds. In addition to bank loans and foreign investments, in the WB countries, there are funds available for green development through embassies and development organisations. These projects have managed to stimulate the sector and steer up discussions between the government, business sector and the public but overall, their impact remains limited.

SWOT Analysis

In relation to the above, a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) can play a crucial role in understanding and identifying important actions that need to be taken to introduce changes in the country economy and implement actions that support the circular economy agenda. By investigating strengths, such as resource availability and existing infrastructure, stakeholders in the field can capitalize on existing advantages and encourage collaboration. Addressing weaknesses, including resource gaps and resistance to change, is crucial to fostering a culture of shared resources and innovation. Identifying opportunities, such as collaboration prospects, innovation hubs, and market demand, allows for the strategic harnessing of growth potential.

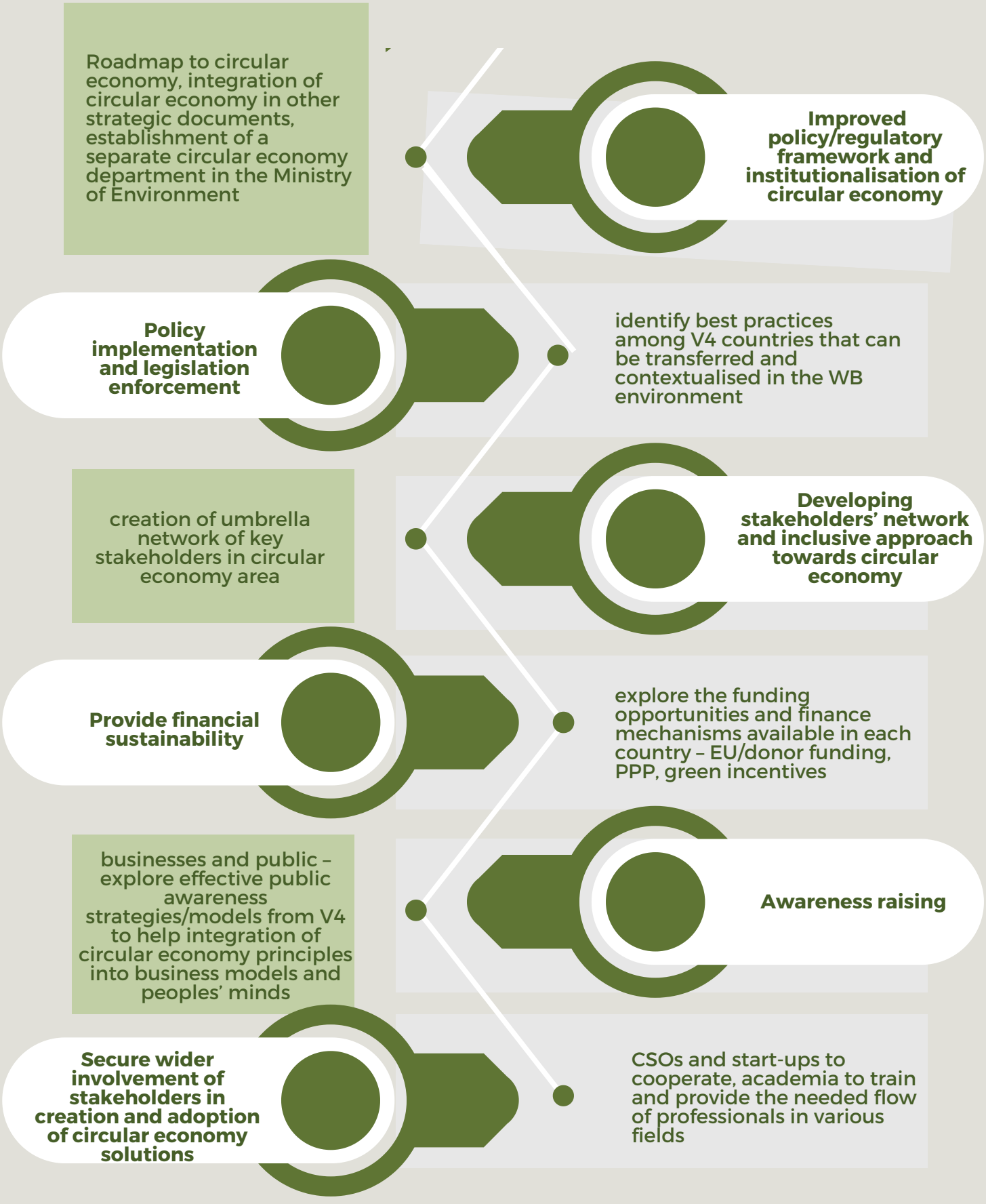
Meanwhile, mitigating threats like economic challenges, underdeveloped markets, competitive pressures, and regulatory risks safeguards the viability and competitiveness of circular economy initiatives. The following summary of the main treads of the national SWOT analyses conducted at the national level can help formulate a targeted action plan, aligning countries' unique strengths with opportunities while proactively mitigating weaknesses and threats and allow more precise transfer of knowledge from V4 to WB countries.

Certainly, the V4 countries have well-structured political and legal framework for circular economy coupled by supportive policies like circular economy strategies and networking structures of key circular economy stakeholders. There is an active involvement of non-profit and research institutions that are at the forefront of various educational initiatives. All this creates an environment of wider preparedness among the organisations in the country, particularly SMEs, to integrate circular economy principles in their operations. This in turn creates a demand for sustainable practices, services, and products.

The WB countries lag behind their counterparts from the V4. Although certain steps have been made in the right direction in terms of improved legislation and governments' commitments to try and somewhat reduce the impact of linear economic development model to the environment and, there are still issues with enforcement of environmental regulations, limited financial resources, insufficient infrastructure, lack of accurate data and lack of active public participation in initiatives related to environment and circular economy. It appears that waste management is the most pressing issue in the WB countries where all of them reported weak infrastructure – including proper landfills, waste collection, and treatment facilities and limited financial resources to deal with waste, especially at the local level.

Weak institutions, corruption eroding trust and hindering any reform changes have also been reported. Political instability in the WB countries hampers policy implementation and long-term planning. Delays in adoption of laws and policy documents together with weak implementation and punitive measures create a complex environment with various and competing interests that is difficult to change.

Based on the respective SWOT analyses carried out for each country, an attempt was made to cross-check the strengths of V4 with the weaknesses identified in WB and to try and isolate **areas of potential intervention and transfer of knowledge that could have the strongest effect on the circular economies in the WB.**



Circular economy and the role of SMEs in the transition process

When it comes to the role of the SMEs, the green transition based on circular economy cannot be the responsibility only of the government or large corporations. Some of the world's largest companies have started to embrace circular economy as a way of creating economic value and achieving social and environmental targets. There is plenty of research suggesting that firm size is an important factor in determining the extent and quality of sustainability practices and smaller firms engage in fewer environmental practices [11]. There are many factors influencing the decision to favour circular economy behaviour most of them being closely linked to scope, both in terms of employees and rates of turnover.

It is worth noting the role of the EU in enabling proper circular transition in the SMEs sector in Europe through the Recovery and Resilience Facility funds. Its impact can be seen in igniting the efforts of the V4 governments towards circularity. In addition to the Cohesion Policy support for the circular economy and the Just Transition Fund, these monetary sources incentivize Member States to adopt the principles of circular economy on a national level without leaving stakeholders behind. This resulted in policy and regulatory documents which have been published in V4 countries that, besides focusing on waste management, provide enough guidelines to support SMEs transition to the circular economy. In Poland, there is a focus on innovation and strengthening the cooperation between the industry and the science sector, expanding the recyclables market, ensuring quality of sustainable production materials, and developing the service sector. Slovakia shares the same interest in innovation and provides R&D incentives to promote the green public procurement through mandatory application of its criteria for all central and local administration procurements. Hungary, on the other hand, places a strong focus on providing applicable solutions related to housing, mobility and food production as a way to achieve the required emission reduction. Hence, the companies can see themselves investing in transforming production processes and maximizing the proportion and efficiency of waste recycling and its transition to material flows.

Despite the fact that a large portion of SMEs tend to rely on state support too much and wait for the signal of public officials prior to engaging in new areas, the national reports point out some case studies where SMEs have demonstrated necessary capacities and environment to transform their business models towards more circularity. This, of course need to be supported with incentivising programmes and tenders that encourage businesses to restructure their activities, knowledge-sharing conferences and awareness-raising activities could assist the SMEs to redesign their supply chains. General state support is crucial for SMEs, and that is readily available through the EU structural funds. For instance, Program Slovakia 21-27, that addresses the transformation to a circular economy, can draw up to 13 billion EUR from structural funds, while the highest allocation will be determined for the investment priority Green Slovakia in the amount of 4.2 billion EUR [12].

[11] Factors influencing the quality of corporate environmental disclosure, Business Strategy and the Environment (2008)

[12] https://eurofondy.gov.sk/program-slovensko/

It is important to point out that small and medium-sized enterprises (SMEs) play a crucial role in this transition due to their adaptability and innovation potential. They play a significant part in the production and distribution of goods and services and their flexibility in adapting to technological and environmental changes makes them particularly important to national economies. According to the World Bank, SMEs make up around 90% of businesses and contribute to over 50% of total employment globally.[13] With this level of impact, it is not surprising that businesses which transition to circular practices are integral to the circular economy as a whole.

The realization of the potential of the circular economy, in fact, requires commitment from multiple stakeholders (such as policymakers, industries, companies, and individuals) to facilitate a process of transition that involves business, societal values, norms and behaviours. In this shift towards a more sustainable world, SMEs play a pivotal role, as noted by the European Union, which aims to become the world leader in circular economy via the enhancement of SMEs. [14]

Those from the WB countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia) face unique opportunities and challenges in transitioning to a circular economy. However, there are many good examples where SMEs can drive innovation by developing new circular products and services. This includes designing for longevity, modularity, and recyclability, as well as creating business models based on leasing, sharing, and product-as-a-service concepts. Furthermore, support for startups and incubators focused on circular economy solutions can stimulate regional innovation ecosystems.

SMEs can contribute to and benefit from the shift to the circular economy in many ways. Innovation and flexibility are probably the most prominent features of SMEs that often make them more agile than larger corporations, allowing them to innovate and adapt quickly to new market demands. They can experiment with circular business models, such as product-as-a-service, leasing, and sharing platforms. SMEs typically operate closer to their communities, which enables them to develop localized circular solutions that meet specific regional needs. This proximity fosters stronger customer relationships and enhances community engagement. The circular economy is meant to create new jobs in areas such as recycling, repair, and remanufacturing. SMEs can leverage these opportunities to develop new skills within their workforce and contribute to local employment. By adopting circular practices, SMEs can significantly reduce their material and energy consumption. This leads to cost savings and improved competitiveness in the market.

[13] The World Bank, Small and Medium Enterprises (SMEs) Finance (2019)

[14] An SME strategy for a sustainable and digital Europe, European Commission (2020)

Developing new and innovative collaboration models and networks is also hugely beneficial for SMEs. Building on the aforementioned flexibility, SMEs can get involved in regional cooperation and exchange of experience benefiting from collaborating with other businesses, research institutions, and government bodies. Such partnerships can provide access to new technologies, funding, and expertise needed for the circular transition. It can also help them in their business model transformation – adopting new businesses that promote circularity. All this, in turn, will make them relevant partners in policy dialogues that can help shape favourable regulations for circular practices.

However, there are still some challenges in, as well as opportunities for unleashing the full potential of SMEs in the circular economy transition.

Challenges

Financial Constraints:

SMEs often face financial barriers to investing in new technologies and business models required for circular practices.

Lack of Awareness:

Due to its complexity and scale, there is still a limited understanding of the circular economy among many SMEs and their customers.

Regulatory Hurdles:

Inconsistent regulations and a lack of supportive policies can hinder the adoption of circular practices.

Opportunities

Access to Funding:

Governments and international organisations are increasingly providing financial support for circular economy initiatives. SMEs can tap into grants, loans, and investment opportunities tailored for sustainable projects.

Market Differentiation:

Adopting circular practices can differentiate SMEs from their competitors, appealing to a growing segment of environmentally conscious consumers.

Global and regional Collaboration:

Participating in global/regional networks and initiatives focused on the circular economy can provide SMEs with valuable insights, resources, and partnership opportunities.

Leveraging V4 circular economy initiatives for the WB

The V4 has made significant strides in developing circular economy initiatives. These efforts provide valuable platforms for collaboration, knowledge sharing, and project implementation that can benefit the Western Balkans. Here is an overview of how the systems and initiatives in V4 countries can serve as models and support for the Western Balkans:

Circular Economy Strategies and Policies

Poland

Poland has adopted comprehensive circular economy strategies, such as the "Roadmap for Transformation towards a Circular Economy", which includes objectives like maximizing the added value of raw materials and reducing waste generation.[15] Poland's experience in integrating circular economy goals into national policies can guide Western Balkan countries in developing similar frameworks.

Hungary

Hungary focuses on sector-specific circular economy strategies, particularly in the biomass, food industry, construction sector, and plastics. The country has implemented policies like the National Waste Management Plan and a deposit return system for beverage packaging (Research and innovation). Hungary's sectoral approach and waste management innovations can provide practical models for the Western Balkans.

Slovakia

Slovakia's struggles to improve its eco-innovation but their efforts in increasing recycling rates are notable.[16] The country has implemented green public procurement and EPR systems, along with policies to support eco-innovation through R&D incentives and tax allowances. This includes the deposit-refund scheme for single-use PET that was used as a best practice and scaled up in other countries, including Hungary. Slovakia's experiences highlight the importance of supportive legislation and financial incentives for circular economy initiatives.

Czech Republic

The Czech Republic has integrated circular economy principles into its national policies, emphasizing eco-innovation and sustainable resource management. The country promotes green public procurement and extended producer responsibility (EPR) systems (Research and innovation). These policies can serve as templates for Western Balkan nations aiming to enhance resource efficiency and sustainable practices.

[15] https://circulareconomy.europa.eu/platform/en/strategies/polands-circular-economy-roadmap
[16] Municipal waste recycling rates in Europe, European Environmental Agency (2023)

RECOMMENDATIONS FOR THE WB INCLUDING KNOWLEDGE EXCHANGE WITH V4

Drawing from V4 countries, Western Balkan nations should develop comprehensive circular economy roadmaps and national strategies that integrate sector-specific goals, waste management innovations, and eco-innovation incentives. The strategies should be comprehensive yet practical and clear in their intentions. They should be developed in collaboration with the local governments and a wider public involvement. Ideally it should include the following:

Wider involvement in circular economy policy/legislation preparation

It is essential to enhance the involvement of diverse stakeholders in the preparation of policies and legislation. Developing circular economy strategies, including providing governmental incentives for recycling waste materials to create new value at both national and local levels is a key step in this process. Support for policy and legislation preparation is crucial, including the establishment of **regional round tables** focused on circular economy topics. These round tables can serve as platforms for **sharing best practices** from abroad, demonstrating how specific regulations have successfully driven change. Cooperation with regional structures such as the Regional Cooperation Council is highly recommended, and these initiatives should follow the EU Partnership Principle in order to bring together perspectives of different stakeholders. Additionally, creating **tools for green and circular public procurement** is necessary to ensure that government purchasing decisions align with sustainability goals. Inspired by Slovakia and the Czech Republic, Western Balkan nations should introduce green public procurement policies and EPR systems to enhance resource efficiency and sustainable practices. To measure the effectiveness of these strategies and policies, the development of **robust methodologies and tools for monitoring and analysis** is essential. These efforts will provide valuable insights into the performance and implementation of circular economy initiatives, helping to refine and improve them over time.

Cooperation with the private sector

Effective collaboration with the private sector is essential for advancing circular economy initiatives. Following mapping of existing waste management and recycling infrastructure would be providing **innovative private sector involvement** in bridging gaps and identifying opportunities for improvement. This process should be complemented by the **creation of circular trade platforms** that facilitate knowledge sharing and the development of good case practices. The mapping can be extended to circular businesses and supported with **development of methodologies and tools** for mapping and assessing green and circular initiatives.

[17]The recommendations were also discussed with the regional experts and participants at the workshop during the regional conference "The Undeclared: Political, Economic, and Sustainable Future of the Western Balkans" in Skopje on 27-29 May 2024

Investment in R&D is also crucial for the success of circular economy policies. Following the example of Hungary and Slovakia, WB countries should increase investments in eco-innovation and R&D, providing financial incentives and support for businesses to develop circular economy solutions.

Regional cooperation is vital, particularly in sharing practical solution that works, while the **creation of zero-waste concepts** tailored for both administration and industry can set a strong example for sustainable practices. **Promoting innovation projects** is key to driving forward new ideas and technologies that support circularity. By leveraging platforms like the Cross-KIC initiative and the RECONOMY program, WB countries can foster regional cooperation, share knowledge, and implement joint projects that promote circular economy principles.

To **encourage broader participation**, it is important to create or expand support programs that **help entrepreneurs adopt circular business models.** Making information on **consulting and financing for circular transformations** more accessible and centralized will empower businesses to make the transition more smoothly. Additionally, launching **voluntary commitments between** government and industry can foster a cooperative approach to achieving these goals, ensuring that all stakeholders are engaged and working towards a sustainable future.

Cooperation with local governments

As the closest level of government to citizens, municipalities play a key role in implementing circular practices and their involvement is crucial for driving local sustainability and resilience. Hence, cooperation with municipalities is essential for advancing effective waste management and circular economy initiatives at the local level. A **comprehensive waste management analysis**, focusing on both mixed and sorted waste, provides the foundation for informed decision-making. **Introducing and implementing organic waste collection systems**, alongside **door-to-door collection services,** ensures that waste is managed efficiently and sustainably. WB local governments capacities in waste management are ineffective. Countries like Poland and Hungary have made significant progress in waste management. Communicating these factors of success across WB can prove to be crucial for encouraging widespread adoption of best practices and enhancing the effectiveness of circular economy initiatives. By clearly illustrating the strategies that lead to successful waste management, communities, businesses, and local governments can replicate these methods, driving collective progress toward sustainability.

Developing **waste collection management strategies** and infrastructure, including the '**pay as you throw**' **system,** incentivizes waste reduction by charging residents based on the amount of waste they produce. Smart solutions for waste data collection further enhance these efforts by providing real-time insights into waste generation and management.

To support these initiatives, **circular city scans** and the **creation of circular maps** offer valuable visual tools for identifying areas of improvement and tracking progress. Also, creating clear **guidelines for citizens on waste prevention and sorting** empowers communities to actively participate in the circular economy, making sustainable practices an integral part of daily life.

Improve local body of knowledge on circular economy

Research and analysis are critical components in advancing the circular economy, particularly when it comes to identifying areas with the greatest potential for positive impact. By **mapping the current performance** of a country in the circular economy, we can pinpoint hotspots, sectors, and systems that, if transformed, could yield significant environmental and economic benefits.

For instance, the **new plastic economy** presents opportunities to reduce plastic waste and address the growing concern of microplastics. **Exploring alternatives** such as bioplastics, along with addressing the challenges faced by the textile industry, are essential steps in this transformation. Understanding the effectiveness of waste management systems in cities and regions is also vital for **developing targeted strategies** to reduce waste, including food waste prevention.

Moreover, **research into green public procurement** and how other regulatory instruments can support the market penetration of circular products and services is key to driving systemic change. This analysis not only guides policy decisions but also ensures that circular economy initiatives are grounded in data-driven insights, maximizing their impact on sustainability.

Public awareness initiatives and educational programmes

Raising awareness and providing educational programmes for general population are vital for the success of the circular economy, as they empower individuals to make informed choices that support sustainability and help shift behaviours towards more environmentally friendly practices.

To promote the circular economy, it is essential to **create platforms and events** that engage communities at all levels and foster a culture of responsibility. Developing an **online forum** for regular exchanges on how the circular economy can be integrated into everyday life is a key step in fostering continuous dialogue and sharing knowledge. Complementing this, **regional, national, and international events focused on circular economy** topics provide valuable opportunities for learning and collaboration.

These events should embody circular economy principles, incorporating workshops on repairing, reusing, and sustainable practices, such as clothing repair and local, circular design promotion. Additionally, promoting the shared economy in transportation and other sectors encourages resource efficiency and reduces waste.

Educational initiatives, such as **school programs** that include visits to waste management facilities, recycling plants, and landfills, play a crucial role in shaping future generations' understanding of sustainability. **Workshops** on rethinking, reducing, and reusing materials further reinforce these principles.

To extend the reach of these initiatives, **publishing brochures** featuring successful **practice examples** and communicating the benefits of the circular economy through local media is essential. By **showcasing good practices** from both the region and beyond, these efforts inspire communities to embrace and implement circular economy strategies in their daily lives.

Develop more platforms for collaboration and knowledge sharing

Some of the existing platforms examples include:

Cross-KIC Initiative which involves various European institutions working together to strengthen circular economy principles. This initiative emphasizes policy engagement, education, capacity building, and fostering entrepreneurship (Research and innovation). Western Balkan countries can join similar collaborative networks to benefit from shared expertise and resources.

OECD Circular Economy Regional Initiative (CERI) supports the design and implementation of Circular Economy Roadmaps in the Western Balkans, addressing barriers and scaling up circular technologies and practices (Research and innovation). This initiative offers a structured approach for Western Balkan countries to align with EU standards and adopt best practices from V4 countries.

RECONOMY Programme emphasizes regional cooperation and knowledge sharing, bringing together stakeholders from different Western Balkan countries. It supports understanding and implementing circular business models and waste management practices through strategic discussions and collaborative platforms (Research and innovation).

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