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# Circular economy as an imperative of sustainable development in North Macedonia and Serbia

# Cirkularna ekonomija kao imperativ održivog razvoja u Severnoj Makedoniji i Srbiji

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**Abstract:** The circular economy is the antithesis of the current linear model of an economy based on uncontrolled exploitation of natural resources and flow of materials (factory - user - landfill). The principle of the linear economy has a take-do-throw base, while the circular economy has a wider take-do-fix-reuse-recycle base. There is a great need for a circular economy in the world, with recycling being considered the leading instrument of this model of economy. Therefore, the aim of our work is to show that the circular economy is imperative for sustainable development in North Macedonia and Serbia. The paper is conceived in three parts. The first part is based on the analysis of the advantages of circular economy in the countries of the European Union. The second part presents the circular economy as a chance for sustainable development of the Republic of North Macedonia, while the third part is based on the circular economy as a required condition for sustainable development of the Republic of Serbia. The methodology used in this paper is based on qualitative research techniques, i.e. analysis, comparative analysis, and synthesis. The authors conclude that it is necessary to urgently establish the circular economy model and create an appropriate legal framework in these countries, following the example of leading European countries.

**Keywords:** circular economy, sustainable development, North Macedonia, Serbia.

**Sažetak:** Cirkularna ekonomija je antiteza dosadašnjem linearnom modelu privrede baziranom na nekontrolisanoj eksploataciji prirodnih resursa i protoku materijala (fabrika - korisnik – deponija). Princip linearne ekonomije ima u bazi uzmi-napravi-baci, dok cirkularna ekonomija ima širu bazu uzmi – napravi - popravi - ponovo koristi – recikliraj. U svetu je jako velika potreba za cirkularnom ekonomijom, pri čemu se reciklaža smatra vodećim instrumentom ovog modela ekonomije. U skladu sa tim, cilj rada je da pokažemo da je cirkularna ekonomija imperativ održivog razvoja Severne Makedonije i Srbije. Rad je koncipiran iz tri dela. Prvi deo baziran je na analizi prednosti cirkularne ekonomije u zemljama Evropske unije. Drugi deo predstavlja cirkularnu ekonomiju kao šansu za održivi razvoj Republike Severne Makedonije, dok je treći deo zasnovan na cirkularnoj ekonomiji kao neophodnom uslovu za održiv razvoj Republike Srbije. Metodologija koje se primenjuje u radu je bazirana na kvalitativnim istraživačkim tehnikama, odnosno analizi, komparativnoj analizi i sintezi. Autori zaključuju da je neophodno hitno uspostavljanje modela cirkularne ekonomije i stvaranje odgovarajućeg pravnog okvira u navedenim zemljama po uzoru na vodeće evropske zemalje.

**Ključne reči:** cirkularna ekonomija, održivi razvoj, Severna Makedonija, Srbija.

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## INTRODUCTION

The industrialization period was characterized by a linear economic model based on the "take-do-fix-reuse-recycle" principle. The linear economic model is not sustainable due to the growing adverse impact on climate change and the limitation of natural resources. Therefore, it has caused dependence on scarce resources and thus the occurrence of huge amounts of waste and degradation of the environment. As a result, the development of the circular economy has become a necessity as a way of counteracting the consequences of the linear economic model. The circular economy, based on the take-do-fix-reuse-recycle principle, is geared towards reduced use of resources, carbon emissions, and waste generation. In this way, a system of reuse, re-sharing, renovation, repair, reproduction, and recycling is created (The Balkan Forum, 2021). The first beginnings of the circular economy date back to the 1970s, while the use of the term "circular economy" was introduced in the early 2000s. The circular economy represents an integrated systematic approach for economic development aimed to provide benefits to the environment, society, and business. Countries that were the first global representatives of the circular economy are the EU, China, and India. Today, the circular economy is increasingly becoming a unique concept for changing growth patterns and achieving a balance between the resources, environment, and the economy. Global trends confirm that the circular economy is a proven way of creating new jobs and increasing economic growth in countries around the world (Boshkov, Djidrov, 2021). Therefore, the circular economy leads to greater resource efficiency and economic development in the long run by using the principles of gaining competitive strategic advantage of companies and improving the economic aspects of their operations. In the contemporary business environment, the circular economy is increasingly considered as a concept for sustainable development and a crucial strategic issue for achieving corporate profitability and value creation (Haas et al., 2015). This paper provides an analysis of the circular economy as a concept of sustainable development in the case of the Republic of North Macedonia and the Republic of Serbia. Consequently, the paper is conceptually divided into three parts. The first part analyzes the advantages of the circular economy on the example of the European Union, focusing on the linear type of economy in order to take benefits of environmental protection, opening innovative and more efficient ways of production, creating new jobs, as well as increasing the competitiveness of the EU. The circular economy is incorporated in several EU priorities, among which the most important are economic growth and job creation, new investments, climate and energy, social issues and industrial innovation, and global efforts for sustainable development. The second and third parts of the paper analyze the circular economy as a driver for sustainable development of the example of the Republic of North Macedonia and the Republic of Serbia. As candidate countries for EU accession, both countries have an obligation to apply European standards and best practices, as well as to harmonize with EU legislation aimed at waste management as an important segment in migration from linear to circular economy. Based on the research results obtained, it is urgently needed to establish a comprehensive model of circular economy and an appropriate legal framework in both countries following the example of successful practices from leading European countries. In consideration of the above, the methodology applied in the paper involves qualitative research techniques, such as analysis, comparative analysis, and synthesis.

## 1. MATERIALS AND METHODS

The research in this paper is based on data analysis and synthesis of theoretical and empirical facts. The methodological framework is based on desk research methods and includes methods of analysis, synthesis, deduction and induction, as well as general scientific methods, such as descriptive and comparative analysis. The paper also uses the method of collecting primary data, the method of analysis of scientific papers, published texts and documents related to the concept of circular economy at the national level, as well as the systematization of collected information according to research objectives. The main aim of this paper is to show that the circular economy can be a development opportunity for sustainable development for North Macedonia and Serbia as countries in the Western Balkans, from two angles: 1. Comparative review of the circular economy in the EU and 2. Analysis circular economies in the above two countries. The starting hypothesis is that the circular economy is the antithesis of the current, linear model of the economy based on the uncontrolled exploitation of natural resources. The subject of research is the effect of circular economy on the economic development of North Macedonia and Serbia, while the focus of the empirical part of the research is on reviewing and analyzing the basic advantages of circular economy as a chance for development of North Macedonia and Serbia. The originality of the paper was achieved by the analysis aimed at the set

goal of the research, critical evaluation of knowledge and recommendations of the author.

## 2. RESULTS AND DISCUSSION

### *Circular economy and the European Union*

In December 2015, the European Union adopted an ambitious package of measures on the circular economy, which refers to the replacement of regulations in the field of waste management, in order to encourage global competitiveness, strengthen sustainable economic growth and create new jobs. The package includes measures such as increasing recycling, but also plans to extract the greatest possible benefits from all raw materials, products and waste, which would increase energy savings and reduce greenhouse gas emissions. The proposals cover the entire lifespan of the product, in the direction from production and consumption to waste management and secondary raw material markets. The goal of the European Union is to ensure the recycling of 65% of household waste by 2030, i.e. about 75% of packaging waste. Also, the goal is to significantly reduce the amount of metals, plastics and food that end up in landfills or that pollute the oceans. It is estimated that the circular economy can save businesses in the European Union as much as 600 billion euros, and that in the field of waste management: Provide Europe with access to quality and affordable raw materials; Enable additional job creation, i.e. create the opportunity to create more than 170,000 jobs by 2030; Contribute to the reduction of greenhouse gas emissions - directly by reducing landfill emissions and indirectly through material recycling; Reduce administrative burdens, especially for small and medium enterprises, but also public administration by improving procedures and simplifying reporting obligations (GIZ, 2016). The European Union is moving from a linear type of economy to a circular type, because the circular economy provides advantages such as environmental protection, creating new jobs, opening innovative and more efficient ways of production, increasing the competitiveness of the European Union. In addition, the circular economy is closely linked to several EU priorities, such as job creation and economic growth, new investment, climate and energy, social agenda and industrial innovation, but also global efforts for sustainable development. In a word, the circular economy is a systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution (Ellen Macarthur Foundation, 2021). Some European governments are giving impetus to the development of the circular economy by adopting legal solutions that seek to increase waste reduction targets. In addition, they encourage the promotion of eco-products but also discourage disposal through increased waste disposal fees. They also stimulate a different approach not only in product design but also in reuse, by using the product to make something new. Nevertheless, in order for the circular economy to fully come to life, not only changes in production itself are necessary, but also changes in the way of consumption. Companies must be responsible for that, because the improvement of the production process for the purpose of efficiency, refers not only to the use of resources, but also to energy and environmental technology that is acceptable for companies. The benefits and motives of companies in the transition to a circular economy are not concerned with environmental protection but with improving brand reputation and competitive advantage in the market. On the other hand, it is important to work on changing the way of spending and consumer awareness, which are very important actors in this process. This form of economy in which matter and materials circulate and where the so-called zero waste, has advantages over the linear model, which relate to: Protection of resources and the environment - by reducing the exploitation of natural resources, it directly affects the preservation of the environment; Energy saving - companies can use repaired and remanufactured parts of old products and install them in new ones, thus saving significant amounts of energy in production; Reducing unemployment - in circular economy companies engaged in maintenance, repair, recycling, design of eco products and services may become very interesting and attractive occupations in the near future; Promoting innovation and increasing competitiveness - circular economy requires a certain amount of creativity and a significant level of ability to introduce innovations of various kinds into the business, because in the near future only innovative companies will be able to survive the competition (Kalkan, 2021).

Certainly, the principles of circular economy should be applied not only by developed countries of the European Union, but also by developing countries, for which the use of these principles will enable sustainable development and industrialization itself. Some countries, such as Germany, the Netherlands and the Scandinavian countries, have taken a significant step forward and adopted strategies for the implementation of the circular economy, while others, such as China, Sweden, Britain and Brazil, are implementing individual programs or transition projects to the circular economy (OSCE, 2021). Therefore, our research will continue in the direction of analyzing the advantages of the circular economy, as a chance for development in the case

of the Republic of North Macedonia and the Republic of Serbia, as the countries of the Western Balkans.

Circular economy as a chance for development in the case of the Republic of North Macedonia

In December 2019, the European Commission launched the European Green Deal policy (European Commission, 2019), which is focused on achieving climate neutrality in Europe by 2050, whereby the EU economies would produce net-zero carbon emissions and zero pollution by the industry. In order to achieve the implementation of the policy throughout Europe, it is necessary to include the countries of the Western Balkans. The Green Agenda for the Western Balkans follows the same direction as the EU Green Deal and includes 5 areas of intervention: circular economy, pollution reduction, carbonation, sustainable agriculture, and biodiversity (Vučinić, 2019). The Green Agenda for the Western Balkans offers opportunities to overcome all challenges in adopting European principles and standards (Colovic Lesoska, 2020). Moreover, as one of the pillars of the Green Agenda for the Western Balkans, the circular economy will contribute to the reduction of gas emissions, which are extremely high in this part of Europe. Looking at the period 2010-2020. year, the EU emitted an average of 3231.9 Mt of $CO_2$, while the largest emitter of gases in the Western Balkans was Serbia 45.2 Mt of $CO_2$, and North Macedonia recorded only 7.75 Mt of $CO_2$ (Chart 01).

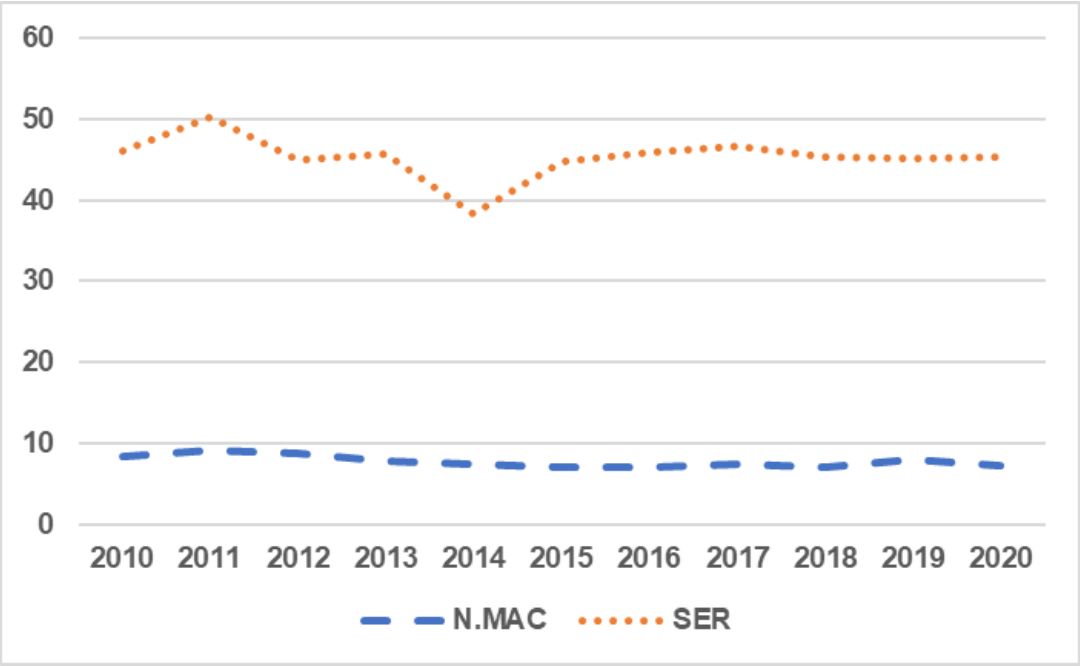


*Chart 1 - $CO_2$ emissions in North Macedonia and Serbia, 2010-2022*
*Source: Authors based on the IEA, 2022.*

The Republic of North Macedonia, as a candidate country for accession to the EU, needs to harmonize the EU legislation and implement all standards and best practices. One of the most significant priorities is to find a way to manage waste as a key segment in migration from linear to circular economy. Providing of waste management system in accordance with the established EU standards will contribute to the protection of human health, a better environment, as well as the implementation of a circular economy in the country. The imperative of the Republic of North Macedonia should be the EU targets regarding sustainable waste management (Balkan Bridges, 2020). The linear economic model was applied during the expansive growth of the Macedonian economy when energy consumption per product was high, there was uncontrolled use of resources, and the impact on the environment was not measured et al. Large quantities of waste were improperly treated and disposed of which led to large quantities of waste at the local level and in the companies that went bankrupt. As a result of a linear economy, the Republic of North Macedonia currently has about 1,000 unregistered municipal "landfills" and 43 active landfills with a total area of about 2,433 (1000 $m^2$). In 2016, 0.6% of total generated waste (694 kg/per capita) was treated (Janevski, Kristik Tasheva, 2019).

The circular economy can contribute to sustainable development by promoting business models

that include designing more sustainable products, reusing resources and products, and more responsible consumption. Macedonian economy is still mostly focused on the “take-do-fix-reuse-recycle” of resources in a linear way. In order to harmonize with the Circular Economy Package, the Republic of North Macedonia needs to monitor the introduction of production processes and standards regarding the minimization of resource waste and improve the recycling rate of used products. Traditional control methods should be broadened with new mechanisms based on preventive measures and introduce improved systems and protocols for data collection and reporting regarding waste management (Environmental news, 2020). Summarized key findings according to the EU monitoring framework and indicators shows that the Republic of North Macedonia has noted limited progress in terms of circular trends in production and consumption, slow progress in performing waste management, relative low inclusion of recycled materials in the total materials and compared to other European countries is marked as a "modest innovator" (see Table 1.). In order to improve the noted results in terms of progress in applying of circular economy as one of the concepts for sustainable development, the Republic of North Macedonia needs to adopt an appropriate strategy for effective implementation and transition to the circular economy (Janevski, Kristik Tasheva, 2019).

*Table 1 - Summarized key findings according to the EU monitoring framework and indicators*

| **Production and consumption** | **Waste Management** | **Secondary raw materials** | **Competitiveness and innovation** |
|---|---|---|---|
| Noted limited progress in terms of circular trends in production and consumption. | Slow but positive progress was noted. There is still considerable room for better recycling and waste management. | The inclusion of recycled materials in the total materials demand is relatively low. Trade of secondary raw materials is on the rise. | Compared to other European countries, the Republic of North Macedonia is noted as a "modest innovator". |

Sources: Environmental news, 2020: 2-3.

The following three indicators are crucial for the transition from a linear to a circular economy: (1) Saving on greenhouse gas emissions, including landfill avoidance, raw material replacement, and carbon storage; (2) Employment benefits, i.e. new jobs as a result of the transition to practices inherent in the circular economy; (3) Economic benefits, expressed in millions of euros per year. Based on the estimates, by 2030, applying the best EU best practices of circular economy, the Republic of North Macedonia would achieve: 47.17 million euros economic benefit; 2740 new jobs; Savings of 951 Gg $CO_2$ ec/year of emitted greenhouse gases compared to 2016. (Ministry of Environment and Physical Planning, 2020). A complete transition to a circular economy for the Republic of North Macedonia would mean a great contribution to achieving long-term sustainable development with significant economic, social, and environmental benefits. Although the term “circular economy” is included in the legal framework of the Republic of North Macedonia through the Law on Waste Management and the Draft Industrial Strategy, the concept of circularity is not fully implemented in the economy. There is still considerable room and need for improvement of current laws, regulations, and strategies for effective implementation of the circular economy as a key prerequisite for sustainable development. Consequently, it is very important to provide access to information, education, training, awareness-raising, and capacity building for the concept of the circular economy. Macedonian companies are still relatively uninformed about all the potential benefits of the circular concept of economics. Therefore, it is necessary for the government to engage in bridging this gap on a structured multidimensional approach and plan (Environmental news, 2020). In addition, it should not be forgotten that the current pandemic conditions (Janković et al., 2021) have an extremely large impact on the economy in general (Munitlak Ivanović et al., 2021).

Circular economy as a chance for development in the case of the Republic of Serbia

In Serbia, the linear model was applied during the expansive growth of the economy, at a time when the use of resources was uncontrolled and energy consumption per product was high, while the pressure on the environment was not even measured. That is why large amounts of waste were generated, which was inadequately treated and disposed of. During that period, investments in the environment were postponed for the future. At the same time, the pressure on the environment was growing precisely because of the large amounts of historical waste that remained in local communities and companies that went bankrupt. According to the OSCE

(2021), as a result of many years of economic activity based on a linear economy, Serbia today has 3,500 illegal dumps and only 8 sanitary regional landfills. Only 5-7% of waste is recycled, while at the annual level, material worth 50 million euros is disposed of in unsanitary landfills, of which there are over 150. Frequent innovations and poor product quality are considered to be the main factors influencing the generation of ever-increasing amounts of waste. Waste occurs when there is a mismatch between the shelf life of the product and the period of use of the product, or when the period of use is shorter than the shelf life. That is why it is necessary to start recycling. Recycling means the process of separating materials from waste and reusing them for the same or similar purposes. The recycling process itself includes the collection, separation, processing and production of new products from used items and materials. However, it is important to sort waste by type, as many waste materials can be reused if collected separately. Therefore, anything that can be reused, not thrown away, is recycling. By signing the Sofia Declaration, the Republic of Serbia fully supported the goals of the Green Agenda for the Western Balkans (European commission, 2020), which is based on five priority areas such as decarbonization, circular economy, pollution reduction, sustainable agriculture and biodiversity in line with the European Green Deal. To that end, the Serbian Chamber of Commerce and the Center for Circular Economy have launched a digital platform for circular economy, as a way to support the economy in its transition to sustainable business and meet the requirements of the Green Agenda (Circular economy for a sustainable economy and climate-resistant Serbia, 2021). In addition, based on the recommendations of the European Commission on Circular Economy, the Ministry of Agriculture and Environmental Protection in Serbia proposed amendments to the law in the field of environment, together with amendments to the Law on Waste Management, adopted in January 2016 by the National Assembly Republic of Serbia. The previous year, 2021 in the Republic of Serbia, will be remembered for the opening of cluster 4, which includes four chapters in the negotiations on Serbia's accession to the European Union, and which relate to The Green Agenda and sustainable connectivity, i.e. chapters 14 (transport policy), 15 (energy), 21 (trans-European networks) and 27 (environment). As a consequence, this should open the possibility of applying for projects in the field of environmental protection, restoration of biodiversity, improvement of air, water and soil and the circular economy itself. Then, in April last year, four laws in the field of energy and mining were adopted, including two new laws - the Law on the Use of Renewable Energy Sources and the Law on Energy Efficiency and Rational Use of Energy (Dedić, 2021a). Serbia's strategic goal is certainly the transition from a linear to a circular economy. In 2019, the Ministry of Agriculture and Environmental Protection formed a working group for the circular economy, which consists of representatives of ministries, institutions and international organizations. The task of the working group is to establish a strategic framework for the transformation of society into a new model. Serbia is the first country in the Western Balkans to create The Roadmap for the Circular Economy, which represents a transition to a circular economy model, which, in addition to profits, also focuses on environmental protection and conservation of resources. Based on this document, Serbia is ahead in this area compared to other countries in the region. The goal is to encourage production through the application of circular business models, motivate industries to create new jobs and improve business by finding innovative sustainable solutions for markets. The Roadmap for the Circular Economy intends to launch a dialogue between decision makers and representatives of industry, academia and civil society to define future steps in the transition to the circular economy (Ministry of Environmental Protection of the Republic of Serbia, 2020). The Roadmap identified the sectors in Serbia that have the greatest potential for this transition process, such as manufacturing, agriculture, food production, food waste, plastics, packaging and construction waste. It is modeled on this type of documents that European Union countries, such as Slovenia, Finland, the Netherlands, Spain and France, have. The latest in a series of documents in this area in the European Union are the Green Agreement and the Action Plan for the Circular Economy (Dedić, 2020). In the coming period, a number of activities in this area are planned, including the development of The Roadmap for the Circular Economy 2.0 for the circular economy. In order to develop a strategic framework for the circular economy, the Circular Economy Program with an action plan for the period 2022-2024 is currently being developed. The focus of this program is to support the application of the circular economy model, support local governments, encourage innovation and cooperation between the business and scientific research sectors. However, it should be noted that current investments in the environment in Serbia are four to five times lower than in EU countries and amount to 0.3 percent of GDP (Dedić, 2021b). This further means that there will be no further progress if Serbia does not enter

the process of energy transition and does not take into account the environment. According to Dedic (2021c), the vision is Green Serbia, where in fifteen years 40% of electricity and heat production will come from renewable sources. By 2050, it should become a completely Green Serbia. Apart from the improvement of the economy in Serbia and the possibility of creating new jobs, the concept of circular economy is inevitable, because it is built into European regulations that al. candidate countries for EU membership must harmonize and apply. It is estimated that the introduction of the circular economy in Serbia could create 30,000 new jobs and increase the competitiveness of the domestic economy, especially in the recycling sector. This means that policymakers should focus on the accelerated transition from a linear to a circular economy, given global challenges in response to climate change, water scarcity and more. Thus, governments have a crucial role to play in supporting innovation and creating the conditions for investment, while the business sector needs to lead investment, innovation and circular economy practices. Nevertheless, in order for the circular economy to fully revive, changes in policies related to the principles of production design and changes in legislation in the field of ecodesign, as well as greening of public procurement and the introduction of incentives are needed to improve production efficiency (GIZ, 2016). That is why the introduction of a circular economy in Serbia would have many positive effects (OSCE, 2021) (Table 2), which would be developed in accordance with national priorities (Kisin, et al. 2021).

*Table 2 - Positive effects of CE on the example of Serbia*

| | |
|---|---|
| Standardization of production by introducing ISO standards (14001, 9001, OSHAS 18000, 30000, 30001 ...), etc.; | Transition from the classic process and processing industry to an innovative industry with far higher value of final products; |
| The transition from a manufacturing to a service economy (higher market value). | Modernization of industrial plants to create conditions for "cleaner production"; |
| Raising social awareness on issues of future development of society; | Reduction of negative effects on the environment, preservation of natural resources |
| Establishing links with companies that implement the circular economy; | Higher professional independence (through strengthening education); |
| Introducing the concept of sustainable development as a milestone for new markets; | Improving the model of taxes and duties on waste in industry and households; |
| Promoting the modern strategy and orientation of Serbia in order to rate investments from major world development funds (EU); | Establishing links with global development partners and organizations such as the UN and the EU to facilitate access to project funding; |
| Capacity building in Serbia, to become a center of knowledge and experience about CE in the region; | Entering the market of modern energy trade, and a potential pioneering position in creating smart grids; |
| Creating a knowledge economy and enabling an orientation towards a green economy; | Savings on modernization of the economy (materials, energy, water, pollution treatment); |
| Education of experts for the latest forms of business and social activities; | Opening new markets abroad for marketing products and services; |
| Reducing the technological gap in relation to developed countries; | Energy independence and sustainable development of society; |

Source: Authors based on the OSCE, 2021.

There are a growing number of companies in the world that harmonize their business with the principles of the circular economy. This way of hunting is not unknown to companies in Serbia, where there are a number of pioneer companies in this field. Only some of them are a company engaged in the production of waterproof ECO panels made of used tetrapack packaging, a company that applies biomass heating systems (coffee husk briquettes), a company for recycling waste tires, etc. This means that the space for sustainable development is large, while the positive effects and benefits are immeasurable. In addition, according to NALED (2020), the development of the circular economy would create up to 30,000 new jobs in Serbia, with a focus on better utilization of food waste, packaging and electronic and electrical waste. Out of 2.3 million tons of municipal waste, it is estimated that almost 900,000 tons are food waste generated "from the field to the table", while most of that waste is generated by households, catering and public sector. Caterers in Serbia annually procure 123,000 tons of

food, of which 20% reject immediately because it is inedible parts such as bones, shells or bark, and another 15% remain uneaten in plates. As much as 99% of the waste generated in catering facilities ends up in landfills, where methane and carbon dioxide are released into the air. Such waste is suitable for the production of biodiesel and bioethanol, animal feed, electricity from biogas, composting, etc. However, a major problem is the lack of infrastructure - from special waste separation containers to adequate sanitary landfills. Therefore, according to the Nordic experience, Serbia needs green innovations on the road to a circular economy, responsibility of all actors in society (institutions, local governments, private sector and citizens), investments in strengthening state capacity, investing in communal infrastructure and solutions for better waste management. Accordingly, the embassies of Denmark, Finland, Norway and Sweden, with the support of the Nordic Council of Ministers in partnership with the Nordic Business Alliance, organized a series of events dedicated to the circular economy in Novi Sad, Kragujevac and Nis (Ministry of European Integration of the Republic of Serbia, 2021). For example, in Denmark, recycling and sorting of waste has a long tradition, where children are at the forefront, because each household has ten waste bins and it often happens that children warn their parents what and where to throw (Beta, 2021). The Nordic example shows that engaging citizens in recycling and the circular economy is at the heart of this silent revolution, where it is not just about sorting plastics and paper, but that everyone can raise their voice about how a city should look and function.

## CONCLUSION

The circular economy is the future. Unlike a linear economy that is based on the take-do-throw principle, a circular economy is based on the take-do-fix-reuse-recycle-recycle principle. Thus, it considers all options in the production value chain, in order to use as few resources as possible, use resources as long as possible and extract as many benefits from them as possible. Despite that, it is much more than recycling. Precisely because it is based on the establishment of an industrial system that is focused on waste generation as a result of the process of repair, reuse and re-production of existing products. The point is not only in the design of products that will be used in the best possible way by the end of their working life, but the point is in the reduced use of energy in their production. However, it should be borne in mind that there is a limit to the number of recycling processes due to the waste cannot be recycled countless times. Each subsequent recycling involves the loss of part of the product, and in order to obtain a new product, it is necessary to invest additional funds. Moreover, in addition to applying all the principles of circular economy, it cannot be recycled indefinitely because always one part of the product must end up in a landfill or in an incinerator. The concept of a circular economy is necessary for the Republic of North Macedonia and the Republic of Serbia. In addition to improving the economies of these two countries and creating space for new jobs, this concept is important because it has already been implemented in European regulations that candidate countries must apply. Furthermore, as policymakers need to focus on moving from a linear to a circular economy, they should consider global challenges in response to climate change. North Macedonia and Serbia need to provide support for innovation and create conditions for investment with the help of the Government and the business sector.

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